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DEPARTMENT OF MEDICINE.

PHILADELPHIA,

Manuscript-book of notes of "A Course of Lectures on the Materia Medica, By Benjamin Smith Barton, M.D., Professor of Materia Medica, Natural History, and Botany in the University of Pennsylvania, 1802." The notes were written by a student in the University,—Jonathan Murdock, in 1802, who, however, did not receive the degree of M.D. from the University until 1811. He was registered in the University as from Pennsylvania, but located for the practice of medicine in Columbia, S.C.

This book was presented to the University Library, January 8, 1903, by Benj. S. Paschall, a student in the Department of Medicine. Mr. Paschall knows nothing of the history of the book.

(John Marshall.)

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No 12

A Course of Lectures on the Materia Medica

By Benjamin Smith Barton M D
Professor of Materia Medica Natural History
and Botany in the University of Pennsylvania

In the 1802 Year of
the University of
Pennsylvania

Notes taken by Nathan Ingraham [illegible] U.S.

G. Dr. Marshall.

189449

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Lectures on the Materia-Medica by Benjamin Smith Barton

On Milk

It is said the action of acids on Milk shows the near approach of this Fluid to the Nature of Blood Ammoniac may be obtained from Vegetables as well as from Animals. Mushroons afford large quantities of Ammoniac I believe milk to be of an Animal Nature Dr. Cullen thinks Cream is the Vegetable oily part of Milk

Concentrated acids and Caustic Alkalies dissolve Cheese Dr. Ferris could not obtain Ammoniac from Cheese whey or Serum Lactis

Water enters into the composition of Whey it appears from the Experiments of Dr Young that water composes 7/8ths of Whey. Whey contains a portion of the caseous part of Milk The watery part is obtained by rennet Cows Milk contains more Cream than goats milk Whey contains a Saccharine Matter From four ounces of Human Milk 58 grains of

Sugar was obtained For the Method of preparing Cummis consult Dr Guthrie Heat and agitation of Cows Milk afford cummis without any souring From 6 lbs 3 Ounces was obtained in a close vessel and in an open vessel only one ounce

The proportion of Cheese is greater in ruminant than nonruminant Animals The Fat is harder in ruminant than nonruminant Animals

How is Milk produced – it has been imagined by some from the resemblance between Chyle and Milk that Chyle is conveyed to the Mammae and that the Milk is not secreted from the Mass of Blood I cannot adopt this opinion from the following reasons viz 1st The Chyle is ultimately mixed with the Blood

2nd Fat absorbed may be mistaken for Chyle

3 No Chyle is seen in Blood drawn from Animals giving Milk Chyle may be examined by heat which will harden it In 1793 I saw about a Spoonfull of white matter like Chyle in the Blood of one of my patients but did not examine it

The peculiar odor of Aliments is sometimes found in the Milk Dr Cullen says he never knew a single instance of a Child being affected by purges given to its Nurse I have known children to be

purged by Medicines taken by their Nurses The Milk of Cows that feed on purgative vegetables is both Emetic and Cathartic The Milk of Animals which have ta ken Mercury Salivates - I however doubt the truth of this assertion

Certain active articles when conveyed into the circu lation sometimes affect the Milk The following fact was communicated to me by Dr Cooper in 1795 says the Dr I attended a Mrs Mooney who after taking a considerable quantity of Mercury was Salivated an infant at her breast who had not taken a particle of Mercury underwent a complete Ptyalism it may be said that the Salivation might have arisen from the breath of the Mother Dr — says that a womans drinking strong Spirits sometimes produces Convulsions in her Child The following fact is from Dr Ferris A- Lady assured me says he that she knew an instance of a Childs being Nursed by a woman addicted to drinking brandy - the infant was taken from this Wo= =man and very soon after sickened and became extreme- ly weak a portion of brandy was then added to its Milk and it again became healthy The milk — may be affected by Opium a woman took 2 grains of Opium her child took the Breast and slept 24

hours The milk is not a much more Elaborate Se
cretion than the Urine It is a fact that if Aliment
is not duly taken in the Quantity of Milk decreases
Milk is an Aqueous fluid drink enables the Nurse
to afford largerquantities. Women during the time of
suckling are Subject to costiveness

The Sugar of Milk is afforded by the Saccharine
part of Vegetables A Bitch fed on vegetable Aliments
alone afforded ascesent Milk - the same bitch fed on
Animal Food gave Milk of an Alkaline Nature
Vinegar does not Coagulate the Milk of a woman un=
=less confined to a vegetable diet Carnivorous Ani=
=mals have probably no Sugar in their Milk The
Milk of the women of Greenland who live upon Ani=
= mal food alone most probably contains no Sugar

It has been long known that the Milk of Cows fed
upon horse chesnuts is extremely bitter Some have af=
=serted that Milk is never coloured by Madder Mr
Baker says he has known the Milk coloured by In=
=digo taken in with the Food The Lithic Acid is
found in a greater proportion in Man than other An=
=imals The Phosphoric acid is most abundant in
those Animals which live on Animal Food alone
The Phosphoric Acid is of Animal origin. Many have

endiavored to impregnate the Milk with Medicinal Substances

Milk coagulates in the Stomach of infants previous to its being digested The curdling of the Milk by destroying part of the Acid of the Stomach may be beneficial Dr Cullen says the early introduction of Vegetable Aliment is improper I am of a different opinion The Indians suckle their Children untill they are from three to four years old Adult Indians use little or no Milk Altho Milk is not Chyle it is more readily converted into good Chyle than any other fluid In many cases of disease milk is to be much depended on In Scrophula Milk is injurious This is a disease of the Lymphatic System it is most common in country Situations The Indians are very Subject to it

Milk is adapted to some Stages of Phtisis Pulmonalis I believe the disease to be founded on a Phlogistic diathesis of the whole System the first Indication is to abstract Stimulus hence the use of the Lancet and Digitalis. Milk is considerd as of an intermediate Nature between Vegetable and Animal Matter Sydenham did much harm by his indiscriminate recommendation of Milk in

Consumption Where there is much action in the Sys=
=tem milk is certainly injurious It is frequently dif=
ficult of digestion In 8 cases out of 10 Milk does
harm in Consumption

On Astringents

Dr Cullen has arranged the Materia Medica into Classes and sections of those Classes I shall be gin with Astringents we are better acquainted with the operation of Astringents than of any other Class of Medicines

Dr Cullen calls those articles Astringents which pro=
=duce a contraction and condensation of the Animal Fibre this appears from their use in Tanning Leather By what means is this effect produced says Cullen is it from absorbing moisture from the parts to which they are applied or is there an attraction between the Animal Fibre and Astringent

The action of Astringents upon the Animal Fi
=bre is very different from that which they exert upon dead Matter In the latter they act by Chemical At=
=traction when applied to the external surface of the

Living Animal Body their action extends no further than the Epidermis I suppose that so long as the powers of Life continue no Chemical affinity between the Astringent and the Body can exist

. Astringents are sometimes useful in Dropsy there are however some cases of Febrile Dropsy in which astringents should not be used In ascites accompanied with Hydrocele which succeeded a Typhus Fever it was not necessary to bleed it was only necessary to have an eye to the Fever Bark and Wine in a few days cured the disease Astringents have been recommended for restraining excessive evacuations

I consider Hydrocele as a Symptomatic affection which may be cured without any local application Hydrocele often alternates with Gout

This is sufficient to shew that it is not always necessary to be very particular about the seat of these affections Is there any foundation for dividing Haemorrhages into active and passive I think there is In active haemorrhages Astringents are often injurious But there are some astringents as Sugar of Lead &c which are particularly adapted to active Haemorrhages In Haemorrhages from the intestinal

Canal astringents generally increase the discharge but in some cases of intestinal haemorhage astringents are very useful

They are recommended in Diarhoea In the diarhoea which arises from a relaxed state of the Intestines they may be given with advantage In those cases of Diarrhoea which depend on a febrile action in the Intestines I do not hesitate to say they are injurious altho diarhoea and Dysentery may arise from the same remote cause they are certainly very different in the latter astringent Medicines are generally very injurious I am by no means satisfied with Dr Cullen's Theory of this Disease The immediate cause of Dysentery is a febrile state of the Mucous Membrane which lines the Intestines In some cases of Dysentery the mild astringent medicines have been found of use I have employed astringent Medicines in Fluor Albus with evident advantage This disease is frequently accompanied by Fever called by Darwin Fluor Albus Calidus I am persuaded that this requires a different treatment from the Fluor Albus Frigidus of Darwin In the former I recommend Bleeding and the Mild

est Astringents

Diabetes is one of those diseases with which we are very little acquainted Physicians have very generally agreed in the use of Astringents in this disease In one of my Patients Diabetes immediately succeeded a fever the Pulse was extremely quick and small An Emetic removed every vestige of the Fever and Diabetes I knew a Case in which the patient was cured of this disease by Bleeding and Mild Purgatives Diabetes alternates with Gout Dr Cullen with great candor relates a case of Catarhus vesical which he attempted to remove by injecting a solution of Sugar of Lead into the Bladder the consequence was a violent Inflammation

Astringents possess a power of relieving calculous affections which he supposes is owing to their absorbing an acid in the Stomach ~~Cullen has given~~ no ~~proof~~ this is not satisfactory the Carbonic acid has been found of use in Calculous affections this cannot act by neutralizing an acid in the Stomach Cullen has given no proof of an acid being in the Stomach But admitting that there is an acid in the Stomach is it not improbable that this acid is absorbed by Astringents I can offer no explanation of the Action of Lythontriptics

In old ulcers astringents have been used with advantage They Stimulate the parts to a more healthy action Asthngents sometimes operate as Cathartics

Galls mixed with Colombo root or Alum sometimes have a purgative effect The Saccharum Saturni is well known as sometimes being purgative Mr Moore has made some experiments to prove that oak bark has no power of contracting the living Animal Fi=
=bres

Dr Darwin offers the following Solution viz that astringents act by increasing the absorption of Solivade this however is not sufficient to explain their operation both condensation and absorption take place

I think that in some instances they act by condensing the Animal Fibre When two ounces of urine were injected into the Stomach of an Animal it contracted considerably the pylorus was shut up Dr Herbenden makes the following remarks "I do not lay any great Stress on internal astringents remedies exept perhaps in Haemorrhages of the Prima Viæ" on this Cullen remarks "By the corrugation produced by an astringent on the Tongue it may extend its action to other parts of the System" In many cases I have known very profuse haemorrhages stopped by Saccharum Saturni in less than half an hour after being taken I think that astringents are carried into the Circulation - madder for instance - In most cases however the quantity absorbed must be

very inconsiderable Their effects must be ascribd to their action on the Stomach being extended to distant parts of the System

On Particular Astringents —

I shall begin with the stronger Stimulants and proceed to the weaker (They administer astringents in Brance in Ether in which they are soluble and thence to enter the System better by de Morveau)

First of the different kinds of Quercus or Oaks the barks of these are certainly astringent and used for the purpose of Tanning (which shews it) Among the diseases in which they are used Dr Cullen mentions relaxation of the Uvula he thinks Alum does not not answer as well without them They are used in Intermittents in doses of half a drachm every hour = Toasted acorns have been used in Dysentery and with advantage after Evacuations and in decoction by way of drink and Injection In Brunswick it is remarkable that it promoted Perspiration in cases of Erysipelas I think Erysipelas sometimes owing to Contagion as in that fever which I saw in 1793 In mild cases it is possible it may do good

but there is a difference in the Treatment of Erysipe-
=las in England it is treated as a highly putrid
disease in which Venesection is seldom employed
in Scotland as an inflammatory one where it is
employed

Galls These are excrescences formed upon the Leaves
of Trees by a particular kind of insect perforating
them They are formed by exudation from the leaf
and are destitute of Smell possessing a Stiptic taste
Water and Spirit extracts their vertues They are
the most powerful astringents yet discovered
In diseases they are preferred especially in intermit
tents) to the Bark because they do not increase the
heat of the System nor circulation so much and
they occasionally purge It has been thought that
Obstructions arose from their use in Intermittents
Golard recommends them in flatues of the Aliment-
=any Canal owing to a loss of Tone 10 grains in 6
ounces of Water a Table spoonfull at a dose here
he says they mostly purged he recommended them
in Clysters for pains of the Loins from Haemorrhoi-
=dal Congestion Golard increased the quantity of
Galls to one drachm in this form Cullen mentions

an Ointment for blind piles consisting of Equal parts of Galls and Hogs Lard. Piles is sometimes the effect of Torpor in the Alimentary Canal in old people the Sedentary and in Hypochondriasis but it is sometimes a febrile affection as in Yellow Fever of 1793 in old peo= =ple who never had them before and in young people who never had them before they must be injurious Sydenham used uses a Saturated infusion of Galls in Injections for Gluets this is often a Local disease here they may be of Service as also in some Gonorrheas but sometimes they may do much harm I have used mild astringent injections with succes in the mild Gonorrhea even where there was some inflammation I never use more than 2 grains to 8 ounces - it is not every one that can bear this Dr Cullen had the candor to tell his class that he once killed a person by injecting a So= lution of Saccharum Saturni into the Bladder

The astringent injections are either Mineral or vegetable They are port wine diluted with water claret rose leaves infusion of brandy infusion of Green Tea Oak bark in infusion Injections of Bal= sam Copaiba with Calomel united by means of a mucilage

Misletoe This is a powerful astringent Sir

J Folger says it is good in Epilepsy and Intermittents the bark is used in doses of from half to a whole drachm along with its astringent it has a bitter taste says he used with advantage in Convulsions Chorea St Vitea and Epilepsy but he at the same time used Asa-foetida Viscus is the officinal name of Mistitoe

Gum Kino This is a useful and powerful astringent we have no botanical name for it however it is a exudation from the trunk of a Tree growing in the interior of Africa its taste Chemical Analysis &c demonstrate its astringency together with which is blended a peculiar sweetness it dissolves in the Saliva and tinges it of a deep Color it is destitute of Odor Water and Spirit of Wine are its Menstrua it however gives out more of its virtues as well as color to Spirits of Wine The watery as well as Spiritous Menstrua forms a black colour with a Solution of Sulphate of Iron which is a test of astringency this likewise distinguishes it from Sanguis Draconis it is much like the Dragons Blood The manner in which I give it is as follows Rub 3 drachms of it together with some Gum Arabic and Sugar in a Marble mortar with four ounces of water but it may be given in larger quantities Gum Kino like Alum frequently purges Dr John Fothergill first introduced it into use and this like

other discoveries it was recommended in many diseases of late it is used in few

First In intermittents recommended by Dr in the Medical Commentaries of a Society in London It pos-sesses an Aromatic as well as an astringent quality hence it is thought proper in intermittents it has succeeded in obstinate quartans ℞ G. Kino ℥j Spirits of Wine ℥j dose ℥ij several times during the course of the day during the intermission Dr Cullen who was sparing of his recommendation of Medicines speaks favorably of G Kino in diarrhoea It is likewise recommended in Uterine haemorrhages by a German Writer he used it mixed with lime water in form of an Injection in Fluor Albus It is used in form of an Injection in Gonorrhea by Bell and with success It is not Soluble in water It is used in this City in old diarrhoeas and in the second stage of Cholera Infantum in which I have used it with great advantage

Terra Japonica Dr Lee gives an account of this in the 5th Volume of the Medical Observations of London There is an ointment made of it much used in Hindostan but it is far inferior to Gum Kino Dr Cullen thought astringents more useful in Ulcers than Surgeons generally allow this Ointment

it is said is used with great Success

Uva Ursi Called Arbutus Uva Ursi by botanists it bears little berries and is an Inhabitant of both the old an New World in Canada New York and New Jersey It is an evergreen plant and known by the Name of bears berries and bears whortle It is thought to be the Archon Staphili of Galen and used by him in haemoptysis It is an Astringent its leaves are Styptic and a bitter to the taste taken into the Mouth it excites a plentiful discharge of Saliva Its bark is most astringent and its leaves most bitter An infusion or decoction of it Strikes a black Colour with Martial Solutions It contains more Gummy than Resinous matter A decoction is preferable to an infusion of its Leaves It was first used in 1730, or 1745 but not properly described till 1756 by Dr De Haen of Vienna Dr Heriar has used it with Success in Nephritic complaints he gaves it in small doses of 5 grains with 1/2 grain of Opium three times a day and out of 16 cases cured 12 he says it proved Nauseous but this was owing to the Opium Dr Heriar un he found Nephritis accompanied with inflammatory symptoms always used Venesection and a purge before he began to give the Uva Ursi he made his patients persist in the use of it for several Months

I never knew it prove Nauseous tho I took it myself
in pretty large doses It is used in Urinary affections
with Stone in Dysuria Strangury and Catarrhus
vesicæ I always use it in powder or watery infusion
Dr Murray recommends it in Fluor albus if long
persisted in where it does not depend on Inflamation
I have found it useful in old gonorrhea as it never
increases the quantity of urine It is more apt to purge
in small than large doses A more favorable rem=
=edy I do not know I used it in a peculiar case of
Gonorrhea where hernia humoralis attended with
success I have since found that Bell recommends
it in what he calls the fourth Stage of Gonorrhea
he gives ℈i at first for a dose afterwards increasing
it up to ℈ss three times a day it abates pain
Gerardi uses injections of it into the Bladder in
Catarrhus vesicæ The Modus Operandi of Uva
Ursi is difficult to explain it produces no sensible
effect on the blood vessels but I think that in large
doses it increases the pulse in frequency and fulness
and likewise it produces slight nausea McLem
=more thinks it a Superfic and that it acts by dim=
=inishing the irritability of the blood vessels This opin=
=ion is not however supported by a single fact That
the Uva Ursi does not act by absorbing an acid is evi=
=dent from our being able to obtain an acid from this

Medicine By distillation it yields an acid which has a power of dissolving the Stone out of the bladder Dr Bisset thinks that it acts on the irritability of the part Haller thought that it acted by robbing the Stone of its mucus in calculus there is a peculiar acid called lithiacic acid and a gelatinous matter as well as phospate of Lime which composes it The calculi in Gout and Sediment in Urine are formed of the same Materials ~~Uva Ursi~~

Uva Ursi is an astringent as its action upon the Muscular Fibre and Chemistry demonstrate also from its use in diseases there is a Secret however in its operation in Nephritic Cases

Nephritis is often accompanied with gouty diathesis this I know from my own case when afflicted with gouty pains and Swellings in my feet if I get cold I am attacked with inflammatory diathesis Now from the use of bitters in Gout and its connections with Nephritis I think it highly probable that they act in the same way I suspect that it does not act entirely by its astringent virtue I can

I can recommend this plant as a most valuable Medicine I have used with advantage in old Gouty head ache but its great virtue is that of a Medicine in Nephritis Podagrica or Nephritis depending on Gout

The Leaves I observed were most bitter and it is the leaves which answer best it is a valuable Remedy as I have found in my own case after venesection The celebrated Kempfer says he never knew great drinkers in Japan affected with Stone or Nephritis (tea has a great resemblance to Uva Ursi) In other cases I have little doubt but what it acts as an Astringent It is not new in being considered as a Tonic Linnaeus considered it as such sixty years ago I do not believe its sole virtues is to be considered as a Tonic or why do not other Tonics answer the same purpose De Haen says that in cases where this Medicine has been exhibited in Calculus and given great relief the Catheter has shewn that the Stone was not at all diminished in Size — De Haen thinks that it acts on the Bladder and not at all on the Calculus —

Is Uva Ursi carried into the Circulation or does it simply act on the Solids — I believe some portion of it enters the circulation According to the experiments of Professor Geradi it may be injected into the Bladder in large quantities without injuring it and out of the body be softened and nearly dissolved too human calculi by Uva Ursi I have known barley water to succeed when Uva Ursi failed — it certainly does fail in some Cases ——

Dose of Uva Ursi—Savanges many years ago used to prescribe 15 grains several times a day Dr Thacher used it in doses of ℥i three times a day but I think it may be given in much larger doses

Geranium Maculatum (of Linnaeus) Cranes Bill also called Spotted Geranium It grows plen= =tifully about this City it flowers in the Spring the root is used this boiled in Milk has been found an excellent Medicine in the Cholera of Children it is not necessary to be very nice about the dose

I imagine it would be usefull in old diarrhoeas where Kino and other astringents are exhibited ℔ Nephritis of certain kinds is relieved by astrin= =gents this Geranium would be entitled to atten tion not merely because it is a powerful astrin gent but because a Species of the same Genus the Geranium Robertianum or herb robert has been employed with advantage in this distres= =sing complaint I am not certain whether the Ge= =ranium Robertianum is a native of any part of America Its astringency consists in the Gummy matter Thacher and Land (of Lancaster Pennsylvania) speak well of it

Heuchera Americana This is found in the Neighborhood of the City it is called the American

Sanicle and Alum Root It is an intense astringent and is found in the Western countries and is the basis of the Celebrated Cancer of Judge Turner

I dont doubt but what it is of great use in ill conditioned Ulcers but I dont think it ever has cured a genuine Cancer It is not used internally it is only sprinkled over the Sore

. Actea Racemosa or black Snake root This is a native of the United States it has been called Squaw Root by the Indians also rich root from its growing in Rich Soils rattle weed from the noise of its Seeds A decoction of it (which is an astringent) was used by physicians in putrid sore throat (as a gargle) which prevailed in New Jersey many years ago A decoction of it cures the Itch I might mention here many other astringents as Tormentil Madder &c but I shall have to treat of this last in another place

Before entering on the Mineral kingdom we shall just mention a few articles in the Vegetable kingdom which are more or less astringent

The Tormentilla (of Linnaeus) which is allied to the Strawberry is not much less astringent Agrimony is an useless Medicine The Cortex Granatorum or shells of the Pomegranate is an useful astringent The Rubia Tinctorum remarkable for having its

colouring matter carried into the System Madder
the astringent properties of this substance are so trifling
that I shall consider them when speaking of Emmanagog-
=ues Gallium nearly the same as madder Ferns in
some parts of the United States it has been a custom
to use the Cantebury Myrtle it is a valuable Med-
=icine The Spina Perfolia or Vine Bark — Here I
close the List of Vegetable Astringents

Mineral Astringents

Alum This is a powerful astringent or Stiptic
and is used both internally and externally —
As an internal medicine it has been used in hal-
morrhagies in haemoptysis and haemorhagy from
the Uterus Cullen seldom found it of use in the
former (it is apt to irritate the Stomach when gi-
ven in large doses from 5 grains to ℈i three times a
day) I have given it combined with Galls in
Menorhagy with succes ℞ Alum ℈i Galls ℥ss di
vide into 10 doses two or three to be taken during
the day This composition I have found of great use in
Haemorhagies the purging may be restrained by
Laudanum It is recommended in Fluor Albus
in conjunction with Columbo Root here the pulse
should be attended to as it is sometimes connected

with Phtisis Pulmonalis or hectic fever here it might do harm It is also used by way of injection in Gonorhea it is sometimes conjoined with Galls Oak bark ℥i Alum ℥ij Aqua Font ℥xvi —

In the second or latter stage of diabetes I believe it may be of service but seldom in the first stage Dr Cullen did not find it beneficial it is doubtful here as it is often attended with considerable fever How does it act — Dr Darwin supposes by increasing the action of the absorbents in the Bladder of this we have no proofs I suppose it acts as a Tonic and Astringent In intermittents it has been used with Nutmeg or some Bitter Dr Lind says he found it here next to the Bark in efficacy

Dr Chalmers used it in conjuntion with Virginia Snake root &c in the Bilious Fever of South Carolina in the diarrhoea that sometimes attends this Fever Dr Adair found Canella Alba and Bark excellent in intermittents with 6 or 7 grains of Alum at a dose

How does this Medicine act in the cure of Intermittents I suppose it acts Similar to the Peruvian Bark in whatever manner that acts It is certain that from the portion of Bitters used with it it is most successful Of its use externally applied - Cullen recommends it in re-

lascations of the Uvula (as a gargle) It was also used in the Putrid Sore throat by Dr Colden (governor of New York) In inflammations of the Eyes Dr Cullen thinks it more efficacious than white Vitrol or Sugar of Lead he used it in solution from 5 to 2 grains in ℥i of water

Dr Darwin classes it under the head Sorbentia the property of these Sorbentia is to produce Costiveness but it frequently purges and is sometimes Emetic in doses of ℈i and produces costiveness in doses of 5 grains

Of Tonics

These are less Stimulant than astringents says Dr Cullen often act as Tonics on the animal fibre I think astringents act as Tonics when they possess bitterness in ded I think that all astringent medicines are more or less Tonic but there are many Tonics which are not astringent I think there is some propriety in considering the astringents and Tonics under two distinct heads as Cullen has done Dr Darwin has classed them all under Sorbentia

By Tonics I mean such Medicines as when applied internally or externally give partial Strength without greatly increasing the heat of the body Opium and Wine may act as Tonics but they often increase the pulse in frequency and fulness which I class under the head

of Incitantia tho the Strength is lyfs permanent than that derived from Tonics

I do not beliive that the essence of Tonics consists in the bitters for there are intense bitters which are not Tonics - thus Opium all the preperations of Iron Copper Arsenic and Linc are some of the most valuable Tonics and are still destitute of bitter Galls are destitute of bitter and are still Tonics

In what does it reside - No medicines are Tonics that do not manifestly act as Stimulants on the System I beliive they act upon the principle of Life in whatever that consists - they increase the frequency of pulse and sometimes cause heat at the Stomach and flushing in the Face and even Columbo root one of the purest Tonics in the world How often do we see the injudicious use of Bark do harm I beliive the time will come when all Tonics astringents and Stimulants will be included in one scale as we do heat now

I think that bitters act in increasing the appetite and promoting digestion by stimulating the Stomach to secrete gastric juice in larger quantities Are or do bitters ever act as Diuretics - Bitters certainly act as Stimulants or Irritants and I beliive there are few Stimulants but what act sometimes as Diuretics Dandilion certainly has this effect and it is a bitter Opium I beliive proves

diuretic Tonics as bark act in curing. Dropsy by preven
ting the paroxysms of Fever on which Dropsy depends

I believe bitters are Sudorifics because they are Stim=
=ulants I believe a greater purgative quality belongs
to bitters than we are aware of gentian posseses that
Quality Bitters are emanegogues because they are Stim=
ulants Malt Liquors seem peculiarly adopted to Chlo=
ros is Bitters are said to possess a Narcotic Quality
Haller thought the Gentian Lutea or common Gentian
possessed of this I am persuaded that many bitters
are possessed of Narcotic qualities among these lutea
benosa, faber St Ignatia and even the bitter Almond
is said to have produced Urticaria or Nettle Rash ...

On the Use of Bitters in the Cure of Gout —

Tonics — Portlands powder (for the portland powder see Ais=
totochia longae) ℞ lesser centaury snake root
Gentian equal parts a drachm every morning in boil=
ing water for one year I reject the notion of bitters be=
ing necessarily deleterious and give it merely as a con=
jecture that bitters may produce an irregularity in
the circulation of the blood producing congestion in
the head Brown thinks an Apoplexy was brought
on by Laudanum and ardent Spirits which he us=
ed for gout The bad effect of bitters arise from the

indiscriminate and injudicious use of them

Linnaeus says that bitters were of infinite use in Nephritis or Stone it is highly probable for reasons we mentioned when on the use of Uva Ursi in Nephritis I believe that in one half the cases of Nephritis and Gout the wine and pharmaceutical part of bitters are effectual Bitters in Substance should be preferred Bitters give out their virtues to cold and warm water not so much however to the former Bitters seem to be more efficacious infused in Spirit than in water whether by infusion or decoction for the infusion if made strong is mostly disagreable Extracts are more agreable in proportion to the temperature of the Water Decoctions are still more powerfull they are most disagreable as they disperse the Aroma and contain more earthy parts from experiments made in Edinburgh Dr Lubin thinks the cold infusion preferable but not if made in the slovenly manner they commonly are Decoctions are commonly made in open vessels here we lose the more volatile parts therfore close vessels for this purpose are much better

Columbo should be given in Substance or Spiritous Menstrua or it will be useless Bitters with Aroma are best in Substance the Shorter the infusion the more agreable
~~more~~ agreable

Of Particular Bitters

Gentian (the yellow) Many Species of these are known to botanists. Gentian Lutea - This is a native of the old world and not of America the powder is obtained from a yellow Root

This is one of the most valuable bitters known Water and Spirit extract its Bitter tho the Spiritous extract is preferable An infusion of it prevented flesh from putrifying and bread from fermenting and therin it is an Antiseptic

The Elixir Stomachis of Rosentine is composed as follows ℞ Orange peel Ziij rub it in a Marble motar with Zfs of Extract of Gentian and digest them in a half pint port wine Dr Butter thinks it a bitter not inferior to Columbo in doses of 3i it is said to be equal to Bark Dr Cullen gives it in intermittents in conjunction with Galls and with Success I think Gentian is preferable in powder I have given it from 5 to 10 grains three times a day the aberage dos is 6 grains I think it may prescribed as a substitute for Columbo Percival used it with Oak Bark Blenk used it in Scrophula

I think it acts as an Anthelmintic sometimes by its purgative Quality in cases of Worms Stoughtons Elixir is nothing but the Tincture Aroma of the Edinburgh Dispensary

Centauria Gentiana (Centaurea Linnaeus) This differs from ours in some respects I think it is inferior to Gentian Dr Cullen thinks it superior In large doses it acts as a Cathartic Zij of it boiled in Zviij of Water is the prep=aration most commonly used The ancients were enac=quainted with its purgative quality It has been ex=tolled in intermittents Senac one of the best writers on this disease used it with advantage It has been ev=ged against its use its producing febrile Symptoms . It is recommended in Gout also in Jaundice this disease I think is owing to a torpor of the Alimenta=ry Canal In which I suppose purging Tonics may do good This Gentian has been found in the Glades of Pennsylvania it is one of the strongest and purest bitters known

Indigenous Bitters

Cheronia Angularis This is an indigenous plant of this country it is the Centaury that is brought to our Market - When Cullen and others speak of Cen=taury they do not mean ours which they know no==thing about

Quassia Amara Named so from a Negro who used it in Intermittents and was obtained from him by a pupil of Linnaeus's It is obtained from a Tree of

moderate height in Surinam This is an intense and agreable bitter and destitute of astringency Every part of it possesses this bitter quality but the bark of the Root is most powerful One Scruple of it in ℔j of boiling water forms a good infusion It is not inferior to the Yellow Gentian or Colycinth as a bitter As an antiseptic it is not inferior to Bark

It was first used in Surinam in bad intermit-
-tents also in continued fevers from its not heating the System as much as Bark When pulverized it is given in doses of from 18 to 20 grains In decoction it is given in larger quantities Dr Lettson thinks it gives more vigour than the Bark (in conjunction with white vitrol) in hysterical atony —

In Dyspepsia or laxity of the intestines succeeding Dysentery Haller used it with success also in habitual diarrhoeas it is of use in a few days costiveness generally intervening

Quassia Polygama · Is a bitter wood growing in Jamaica known but a few Years ago It is the wood of a Tall beautiful tree and is a most intense bitter equal to the former It is used in Remittents also in the disease called Pica Linnaeus call it Utter or dirt eating The wood

is most bitter dose from 15 grains to ℥i It has been found servicable in Dropsy and Chloroses

Quassia Semiaruba Is a species of Quassia obtained from a tree in Cayenne and St Domingo In Jamaica it is called Mountain Damsel and bitter stave weed

It has been recommended in Dysentery but not in the first Stage where it would do harm The Taste and Chemical qualities do not prove it to have any astringency - It is a pure simple bitter Water and Spirit of Wine extract its bitterness Cold water extracts more of its virtues than warm

It is recommended by Pringle in Dysentery Likewise by Huck Sanders and others It sometimes nauseates the Stomach De Haen recommended it first as a febrifuge I think it may possess this virtue as a Tonic

In 1783 an Epidemic raged in France which after resisting every other medicine yielded to the Semiaruba

Menyanthes Trefoliata Called Bog peil also Marsh Trefoil This is a native of Europe and also grows in the Neighborhood of our city It is of a black Colour and is a strong and intense bitter From its effects it is not astringent It has a foetid smell Spirits of Wine and Water extract its Virtues

It sometimes proves purgative and Emetic in doses of 2 or 3 ℈ It has been recommended as a Lithontriptic Dr Cullen remarks that he has frequently heard of the Gout

by this Medicine The country people in New Jersey use it with succes in Chronic Rhematism

In France it has been used for the Stch Herpes Lacnia Capitis &c Cullen speaks of its efficacy in Cutaneous affections In England the ~~Inspissated~~ Juice is used in Skin diseases according to Buchan

Centaurea Benedicta often (called) Cardunus benedictus blessed thistle This is a Native of Cairo and Spain It is a pure Bitter and has a disagreable Smell which is lost by drying The best preperation of it is an infusion in Cold water Cullen thinks it has no virtue It is said to be Antiseptic and Anthelmintic It has been found useful in Intermittents

Humulus Lupulus (Linnaus) Common hops this is undoubtedly a Tonic It is a pure simple odorous bitter The flowers are used Its Medicinal virtues are the same as those of the other Aromatic bitters out of the body it has been found to dissolve the Calculus Ray thinks that since Malt Liquors have been used in England Calculous complaints have lessened

Darwin thinks bitters act by promoting the Absorption of Chyle Cyprianus whose veracity here cannot be doubted and who cut 1400 patients for the Stone found that most of them were wine drinkers and none of them drank Ale I think my Nephritic Pains

increase after drinking porter Linnaeus was the first who dis
covered that Hops possessid a Narcotic Quality I think
there is some foundation the frequency and fulness of
the pulse after drinking porter is owing to the Hops it con=
=tains for every Narcotic is a Stimulant Porter is a=
=dapted to the Typhus State of Fever I think its contin=
ued use is mor injurious than wine

Ignatia Amara Faba St Ignatia or St Ignatius=
bean This is the seed of a Tree and is the most intense
bitter we are acquainted with 1/4 of a grain applied
to the Tongue gives a durable taste

It is not a simple bitter it has a narcotic quality
combined with it this union as I formerly said is a
frequent one ℥ss of it given in powder to a dog pro=
=duced Convulsions and Death in Seven Minutes It
vomits and purges It produces in large doses Spasm
Risus Involuntaria vertigo tightness of the Thorax
and cold sweats It should be used with Caution

It has been recommended in Intermittents and
has a place in the Madrid Dispensary Dr Linn
gave it in doses of 2 grains to Adults Lewis says
that 2 grains of it are equable to ℥i of Bark A Monk
gave it in doses of 8 grains I have never used it

Nux Vomica (Stoechus Nux Vomica (Linnaeus) This
from its botanical affinities and medicinal qualities

is very nearly allied to the former The seeds are used It has a disagreable bitter taste the Gummy parts are smallest the Resin is an Intense bitter It kills dogs cats cows &c Sesner killed a dog by giving him 3/s with some flesh The Sleep induced by it is not a true sleep but a Stupor The Animal neither sees nor hears and the Limbs or Tail may be cut off with=out its being disturbed It has been used in intermit= =tents also as an Anthelmintic with the male fern

Fumaria Officinalis (or Fumitory of the Shops) This is a Native of Europe and is common in the Uni= =ted States It is a bitter without any odor The Juice when inspissated forms an Extract that answers all the purposes of the Fumitory itself There frequent= =ly efflouresces upon it a Salt similar to Nitre the wa= =tery infusion also affords some of the same Salt

Cullen thinks it an useful bitter and used it in cleansing the Skin (Lepra) dose Zij drams of the Juice twice a day Leidenstock and Thompson also recom= mend it in Leprous Cases attended with Glandular Swellings in does of three or four table spoonfulls it is a purgative and diuretic in this last it is similar to the Senaka Snake root

Columbo This is the most important of all the bit= ters in the Materia Medica It was known in 1685

by the Name of Columbo tho the vegetable of which it is the Root is not known yet It grows in and is a Native of Afsia It is a Strong agreable Bitter of a pungent taste and Aromatic Smell It gives out its virtues to Spirituous menstrua It has antiseptic virtues according to Percival in doses of one Scruple he found it did not affect the Pulse I found ℥ss in= =creas the pulse in fulness and hardness

It has been used in dysentery Cullen gave it with success in Dyspepsia I have found it an important bitter when given in Substance and in large doses to be continued for some time Combined with powder of Steel it is an excellent Tonic The dose should be reg= =ulated according to the age and Constitution to A= =dults from 16 to 21 grains thre or four times a day and even ℥ij several times a day The best Substitute for Columbo is Gentian

Xanthorisa (or Yellow Root) This is a Native of the Southern parts of the United States It is said to be nearly allied to Columbo It appears to contain more of a foreign acrimony and communicates a sense of pungency to the Tongue which is greater than that im= parted by Columbo. It does not appear to possess the least Astringency. Like Columbo it gives out its prop= erties to a Spirituous menstruum only. Like Columbo

it is purgative and destitute of astringency It communicates a yellow colour to the Saliva

Another Bitter nearly allied to Columbo is the Hydrastis Canadensis When added to a Solution of Sulphat of Iron it gives no indication of astringency

Matricula Chamomilea (or Chamomile of the Shops)

There are several Species of this That which I am treating of is not (what is) used by the people here The flowers are used in Infusion as a Stomachic The infusion is not so liable to purge as the powder This article was chefly used in the cure of Intermittents befor the Bark was known It purges in large doses

Tanacetum Vulgaris (Tansey) This is a powerful bitter it has a strong smell It is much praised in Gout and is recommended by Rosentine as an Anthelmintic in injections of Milk It has been used in intermittents and probably with advantage

Absinthium (Or worm wood) called artemesia absinthia) This is an intense bitter it has the property of rendering the milk of Cows and the flesh of Sheep who feed on it bitter It gives out its essential oil without essening its bitter qualities The leaves are more powerful than the flowers It is said to possess nox

ious powers but Linacus says people have taken it for 6 Months together without this effect Its expressed Juice has been used with Cloves in Intermittents with advantage This noxious power which is supposed to produce pain in the head I think arises from idio syncrasy all bitters intoxicate sooner when combined with Spirits than without it The Juice has been used in the quantity of half a table spoonfull every two hours In a Gentleman who took this medicine for a pain in the Stomach it brought on a running from the Urethra and relieved the Pain in the Stomach it is probable that the pain in the Stomach was gout which was translated from thence to the Bladder

Aristolochia Longa This is allied to our Virginia Snake Root It is a Native of the South of Europe and is a considerable bitter it is the Root that is used It got its name from its supposed Emenagogue powers hence its name Birthwort

It is one of the ingredients of the famous Portland Powder the Composition of which is as follows Re Aristolochia and Gentian the tops and leaves of Smallage Marder lesser centaury and ground pine (equal parts) made into powder Zi of this to be taken every morning for three Months in any convenient Vehicle then Zi for three Months after

wards Zfs for Six Months and to conclude the procefs Zfs is to be taken every other day for a Year —

Portlands powder operates in the Same way as Opium Brandy &c merely by a repetition of Stemulus In a gocat number of Instances it has done much mischief it wastes the powers of the System and creates irregularity of the Circulation - Out of every one who took this powder 950 persons they were all dead in 2 years Perhaps the Anstolochia has done more harm than any other bitter The long continued use of it has in Some instances removed the villous coat of the Stomach

Aristolochia Serpentaria (virginia Snake root)
This grows in Virginia and is exclusively a Native of ~~Virginia~~ America There are three Species of it differ from each other Actea Racemosa Seneka Polygala and the Spygelia Maryandica or Carolina pink root this last differs essentially from the rest

Virginia Snake root is a bitter and has an Aerimony of the Aromatic kind It is a gummiresinous bitter It is antiseptic and has little astringency Its Stimulant property is more than that of Bark on the pulse its effects are more decided Its Alexipharmic qualities were founded on wrong Notions It is Suited to the Typhus State alone

Dr Mercken one of the best writers on the Plague as well as Hillary say they could not exhibit on account of its hurtful quality viz that of a Stimulant The Dose of the Tincture of the Virginia Snake root is from ℥ss to ℥ss

Arnica Montana (of Linnaeus) Leopards bane also Doronicum Germanicum This plant grows in several parts of Europe particularly in Germany and flowers throughout the Summer It has oval pointed leaves similar to those of plaintan the leaves and flowers have a penetrating bittersh taste It has considera-ble powers as a Tonic it is used by the Germans in obviating the bad effects occasioned by bruises and falls from its supposed power of attenuating the blood but on account of the violent Stimulus this remedy excites its external use is attended with vomiting and anxiety it requires much pre caution in the mode of using of it

The herbs and flowers are most conveniently gi-en to irritable habits in simple infusion ℥i of the dried flowers or double that quantity of the leaves is infused in one quart of cold water and a tea cup full given every three or four hours it may be increa-sed to ℥4 or 5 to a quart of water

It has been recommended in some cases of Paral-

ys is It has likewise been used in intermittents and Dy=
=sentery I have no experience in the use of this Medicine
It is not obtained in the Shops of England or in this Coun
try

Cortex Aurantium There is an Union of Ose with
bitter in Orange peel It is highly recommended by Whyt
=Noff and others in Intermittents The Leaves and Flowers
have been used in ~~Convulsions~~

Cascarilla Is a Native of Jamaica and has been
lately found in Georgia It has a bitter with an Aro=
matic taste when applied to the Tongue it leaves a
durable heat It has an aromatic Smell not unlike
Musk hence it is used in Smoking with Tobacco in
which way it is said to intoxicate much sooner

It was used by the Stahlians in doses of ℥ss every hour
instead of the bark against which they declaimed

Cullen classes it with the Aromatics

Cortex Peruvianus (Cincona officinalis) Peru=
vian Bark got its name Cinchona from the Countess of
Cincona whom it cured when she lay ill of a Fever at
Lima - Jesuits Bark from the monks of the Society of
Jesus by whom it was used in Spain

This is one of the most important articles in the Ma=
teria Medica - unknown before the discovery of America

It grows near the City of Loxa in Mexico It is the Bark of a Lofty thick Tree tho now but 12 or 15 feet high and does not exceed a mans Arm in thickness It is exclusively a Native of America a plant called Stevetana lately discovered in Europe is supposed to be near it

It was first used in the reign of Charles the first There are four Species of it Red White rough Yellow and Pale It has a bitter and astringent quality joined with more or less Aroma tho the last is not necessary in its use It is a powerful Tonic and one in which the happy properties of Bitter and Astringent are joined In Dyspepsia Dr Cullen supposes it acts upon the Muscular Fibres of the Stomach giving Tone &c In Dyspepsia I think it acts upon the debilitated vessels that secrete the Gastric Juice Its use in Intermittents I think is owing to its Bitter Astringent quality as they both do it in a Seperate State Galls do it and they are destitute of Bitterness

I think there is a secret in the Modus Operandi of this Medicine Its use in most cases of Intermittents is well adapted Dr Heberden in a late publication says he has lived (to the age of 70 years) to acquire much less confidence in the use of most Medicines but more confidence in the Bark At what time may bark be given with advantage I think it is proper in the first paroxysm

of an Intermittent tho in the most simple Intermittents the Lancet is necessary two or three times where Tonics might keep up the Morbid action of the Heart and Arteries In bilious I have been forced to venesection five or six times before I could give the Bark

May the Bark be exhibited without any previous preparation of the Body for its reception — See Cullen on this Subject In most intermittents both vernal and Autumnal I have almost always found it necessary to precede the exhibition of the Bark with venesection - Should the exhibition of the Bark be preceded by Evacuants Emetics are sometimes of Service I found the use of Rhubarb with Bark answer the purpose where there was Obstructions —

The Bark does not increase the Obstruction but rather prevents it If inflammatory Symptoms are present Bark with Mercurials should be used In obstructions if there are highly inflammatory Symptoms present bark is unsafe I believe the pale Bark is as good as the Red I prefer the pale because it is never adulterated the Red never unadulterated

At what time whether before or after the Remission of a Paroxysm is the Bark to be Exhibited I think the Stomach is more irritable just before the Paroxysm and therefore it is not liable to be of Service If at this time will often puke It is objected too because the second paroxysm often kills as has often been the Case here it cer

tainly should be exhibited without waiting for a Remission
Dr Home thought the best time for exhibiting the Bark
was just before the Paroxysm I suppose it enters the Ci
culation May it be exhibited in the hot stage Drs Clark
Balfour and Wright are in favor of it I never exhibited
it in this Stage the only physician who did use it in
this Stage was the late Dr Hodge

Of its use in the Intermittents This Sup
pose arises from the same causes that intermittents and
remittents do and in the same situation they often run
into each other and are but varieties of a common Species
of Disease

The disease called Reunsy in the Head (indelwore
Hotel) from a sticking pain in the head arises from the
same causes as Intermittents it principally attacks there
subject to Intoxication here the Bark is proper after
Venesection

Of the Use of the Bark in Various forms of
Disease

Plague I believe this disease to be of the Synochus
kind and attacks with inflammatory Symptoms It
arises from a Stimulus of the highest kind at this time
Bark must be highly pernicious tho we read of the lar-
gest quantities of Bark being given in the Plague

I believe this disease to be of two kinds. This I infer from

the contradictory accounts we have of it In 1725 Dr Dover says he had 180 patients with the Plague attended with Buboes and from each of these he took 10oz of Blood at the first bleeding of this Number 8 only died and those such as were accustomed to strong drink Dover was a pupil of the Immortal Sydenham

Dr Mc Kenzie a late but much neglected writer says that in the Plague at Constantinople he could not exhibit the Bark to any advantage A general observation is that it is improper where any sizy blood appears this was the case in the Fever of 1793 where bark was improper In Remittents and Intermittents it is improper untill the Inflammatory diathesis is reduced

Acute Rheumatism Dr Ralph says he used it with advantage but I think the Type of this disease must have been of the intermittent form as it does harm here The Bark may be of use in Chronic Rheumatism I have little experience in it An old experienced Physician in this City informed me that he found no advantage from the Bark in Rheumatism when this disease puts on an Intermittent form this Medicine may be of Service

Gout This is sometimes ushered in by an Intermittent in such Cases it may be of Service It is recommended

in Cholera Morbus this sometimes requires the Lancet tho I have in most cases been able to effect its Cure by Dilluent and Thebaic Tincture

Typhus This is supposed to arise exclusively from a State of Human effluvia but I think I have seen cases of it evidently arising from the same causes that have produced Intermittents and Dr Currie of Liverpool has remarked the same It is however from Stimulating matter and its first effects are inflammatory Symptoms here Bark must be improper the pulse and other circumstances should therefore be taken into consideration The inflammatory Stage of this disease is longer than in any other disease

Exanthemata These are of an Inflammatory Nature and where a putrid diathesis prevails it is improper for the Bark is a Stimulus and increases the pulse and heat of the Body The Bark from its tonick or Suppuration has led to its use in the eruptive Stage of the Small Pox In cases where putrid Symptoms come on I think it may be allowable It is certain that for a favorable eruption some fever is necessary this fever is sometimes present here the Bark is improper but when it is absent the Bark is advisable Rosentine used the Bark where the Pustules were Languid and slow in Rising

Measles This has required two & even four bleedings in 96 hours

Erysipelas This is an exanthematous disease attended generally with inflammatory Symptoms It sometimes attends the worst forms of fever It sometimes attended Rejue and Yellow Fever Dysentery is the proximate cause of this Disease Take it to be a febrile State of the intestines Venesection and Calomel purges are very proper It arises from the same causes that produce remittents and intermittents and is a Febris Introversa it is often a Symptom of Yellow Fever

Phthisis Pulmonalis I once saved a patient (in this) disease / three Months and when in the last Stage by the use of Bark

Catarrh of this disease there is two Species the one when it is combined with an intermittent according to Cullen the other a habitual Catarrh in this it is proper upon the whole the use of Bark in Catarrhal affections is somewhat nice as they are sometimes connected with inflammation here it must be improper

Haemorrhagies (of Red Blood) Here I divide into active and passive This distinction ought to be kept in view In the former it must be pernicious as in Epistaxis and in haemorrhagies in Malignant fevers In haemorrhagies of the passive kind such as attend the close of Typhus Fever it is of service In Menorrhagia Cullen has found it

effectual as depending on a whole or part of the System where the remote and exciting causes can be obviated But I think it does not do it from its astringent qualities but as a Tonic and Stimulant of course in haemorrhages of the active kind it must do harm

Micturs Cruentis or bloody Urine either from the vessels of the Kidnies or the bladder most inflammatory from the latter in the kidnies it is owing to Lax[illegible] where I think it may be of Service

Dropsy This is sometimes the consequence of Fever here venesection and depletion are the proper remedies I speak on this Subject from Experience

Gangrene This according to Mr Hunter is of two kinds the one without the other preceded by Inflammation where there is Inflammation I rely on venesection but Bark is of the highest value in preventing Gangrene & in that Species of Gangrene sometimes depending on low nervous Fever

Scrophula & Rickets (See the theory of this disease under the head of Milk) If Beddoes doctrine can be depended on acids are the proper Medicines here Bark may be of service too The fossil Alkali has been recommended by Donald Munro and others in Scrophula they con-

joined it with Bark Fontana speaks of the Bark in powder for the Bite of a viper I think it ingenious

Cancers It is said by De Haen to be of Service I think it may assist in mending their appearance

Spasmodic Diseases In Epilepsy were it depends on an Organic affection of the Brain &c it must do harm But where it depends upon a Mobility of the System it may be useful Epilepsy sometimes depends on a plethoric state of the System - here it must do harm When the disease returns periodically and there is no plethora Cullen found the Bark useful I cured a periodical Epilepsy by large doses of Opium just before the accession of the Fit

Tetanus In this disease I have had no experience / but see the 2ro Vol of Philosophical Transactions and a paper by Dr Rush / From facts it appears to be of Service I consider this disease to be indirect debility and of the highest kind Tetanus is often produced by poisonous vegetables as Hemlock Dropwort and Datura Stramonium Animal as well as vegetable poisons have produced Tetanus as the poison of the Rattle Snake

Chorea St Viti In this disease it is of most Service It often depends on a Mobility of the System Whitlhoff and others used Bark with advantage The disease sometimes in the Beginning commences with Plethora here I use

=Section is proper I doubt whether evacuants ever cured this
Disease I knew Bark cure it in a Physician

Chincough In this complaint Bark has been found use=
=full but I frequently have to treat it as an inflamma=
=tory Fever by Venesection It is difficult to know when
the exact time to give the Bark is proper in this disease
It is often accompanied by Remittents or Intermittents

Asthma The Paroxysm often depends on turges=
=cence of the Blood in the Vessels of the Lungs or phleth=
=ora of the System here it would do harm It some=
times depends on a Mobility of the System here it may
be useful Where the Paroxysms are periodical as they
sometimes are in the Morning I would exhibit it

Angina Pectoris A dreadfull disease much allied
to the Gout The cure of this is begun in London by
purging after which they throw in the Bark

Scurvy In this disease it is recommended by Lynch
but Trotter does not place much dependence on it

Jaundice Whitkoff and others have found it of ser
vice perhaps it might have been usefull from its per
=gative quality

Bark has been used in Hysteria and Melancholia
It has been recommended as an Anthelmintic Sthink
there is some deception here It is of service as a Den

tipica when the Teeth Sphacelate in the Sockets or where the Gums are Scorbutic

Of its use in Glysters Here the bowels should be first opened it requires three times the quantity here that it does when taken by the Mouth It has been used as a Poultice to the Abdomen Rosentine cured intermittents in this Manner in Children Some recommend immersing the Legs in a strong decoction of the Bark I have seen it do good in Quilted waistcoats where it could not be exhibited internally When the Bark has been una-ble to cure intermittats Mercury paves the way for its more successfull application

Cortex Angustura This is a recent acquisition to the Materia Medica and from its similarity to the Cortex Peruvianus deserves a place here

It was brought from the West Indies to Britain in 1788 It was supposed to be the production of a Tree on the Coast of Africa but it is now found to come from the Spanish Main Mr Bruce took it to be the Bark of a Tree which cured him of a Dysentery in Abyssinia and which he named Brucea Antidysen-teria vel ferruginea but it is very different

The Angustura is a powerfull bitter joined with some Aroma It has a peculiar Smell and a taste intensly bitter somewhat like Aloes It was used in those diseases

ses in which Cortex Peruvianus is recommended A cold infusion of it retains all its flavor The decoction is bitter and without acerbity With Ether and Spirits of wine it has a yellow tinge With a Solution of the Sulphat of Iron it does not turn black Alkalis render the infusion of a deeper colour Acids act little on it but render it lighter According to Mr Branat Spir: Nitri dulcis act more on it 8 Oz of the Bark afforded 144 grains of Resin

As an Antiseptic it is thought superior to the Bark

Of its use in different diseases It has been given in doses of ℥i every three hours to adults the infusion is made with ℥ss to ℔ij of boiling water

It has been used in London in Dysentery and Diarrhoea according to Branat the infusion is best here

In Intermittents and other fevers its acts powerfully In low fevers it has been given from 10 to 15 or 20 grains and is preferable to the Bark in nervous fevers it is not so liable to offend an irritable Stomach and run off by the bowels

It is used in ulcerated Sore throat and Angina with Scarlet eruptions also in periodical head ach

In disorders of the Stomach it is useful as a Tonic In Chlorosis and obstructed Menses depending on weakness it is an excellent Tonic

In Pertussis it cannot be useful except in certain Stages where it maybe preferable to the Bark as it can be taken easier as in Children who will not take Cortex Peruvianus

Magnolia Accuminata (or cucumber Tree) This has been used in Rhemmatism here in doses of ℥j in Tincture The common Magnolia or beaver tree is a Species of the former

Salisx Alba (or white Willow) The Bark of this is the most astringent of any except the Salix Latifolia

The uses of this Tree should be attended to It is little inferior to the Oaks in Tanning A decoction of it strikes a black color with Iron. As an Antiseptic it is equal if not superior to the Bark The Bark and Leaves are recommended in Gout Haemorhages and Obstructions of the viscera doubtful if of any benefit Dr Stone cured Intermittents by it Cullen found it an efficacious remedy in some cases It is a valuable substitute for the Cortex Peruvianus

The Experiments of Cullen were made on the Salix Pentandria of four or five years growth doz from 15 to 20 grains every hour Haller speaks highly of it as a bath for Scrophulous Children It affords a miserable substitute for Bread among the Kamatschatkans

There has lately been used a Salix Latifolia broad leaved willow in England by a Samuel Jones he thinks it superior to the Bark (some has been sent here) but whether or no I cannot determine

Esculus Hypocastanium It is a Native of Europe and the United States The bark of the horse Ches-

nut has been recommended as a substitute for the Bark
It is common in America and esteemed highly in Amer
ica Dr Cafson of Montpolier used ℥XII of it in curing an Intermittent
in the intervals of the paroxysms Its analogy to the Bark
is evident from its sometimes acting as a purgative and
astringent Caution is necessary in using it to be good
it should be collected in the Spring and from a tree
of Moderate size it ought to be sound and dry as well
as Solid

Mahogany Swietana (a comma mahogany so called after
Dr Van Swietan) It grows in the East and West Indies
it is out of use in the East Indies on account of Dr
Roxburgh's Jesuitic bark tho it is said to be equal
to the Cortex Peruvianus I never saw it

Cornus Suracea So named from the silken appear=
=ance of its leaves it is also called the Red willow it
was used by the New England physicians during
the late war It is very improperly called a willow
it is more nearly allied to the Cornus Florida or
common Dogwood From experiments I am convin
ced it is superior to all the Native vegetables as a
substitute for the Cortex Peruvianus

Metallic Tonics

(These are Iron, Silver Copper Zinc and even Lead)

Chalybeates (Iron) A Tincture of this Substance is made with Zi of the Iron filings Cinnamon and Mace of each Zj in a pint of wine any wine is taken for this purpose tho the Rhenish is best on account of the acid it contains It is an Elegant and valuable preperation and Sits easy on the Stomach the dose is from Zfs to Zfs or Zj used for Indigestion This is inferior however to its being taken in substance

Mars Tartarizatus This is made by mixing equal parts of Iron filings with Crystals of Tartar with as much water as is sufficient to make them into a Mass This mass to be dried in a Sand heat then it is to be powdered and moistened and dried and powdered again this proces to be continued untill it can be ground into an impalpable powder The dose is from 4 or 5 to 10 grains

Flores Martiales This is made by Sublimating one part of Iron filings with two of Sal Ammoniac this Sublimed Matter is mixed with what remains in the bottom of the Matrafs and Sublimed again dose from 6 to 20 grains

Lixivium Martis Let the matter which remains after subliming the flowers be put into a moist place and it will run into a Lixivium dose from one to 4 drops

It is corroded in proportion to the acid existing in the Stomach which often takes place tho not always for it may be effected by Gastric Juice

Iron I think acts as a Tonic or Stimulant The general opinion is that it is aperient and Astringent tho ugh I think Tonic a better name than Aperient which is of doubtful Nature

That it is a Tonic is manifest from the frequency and fulness in the Circulation after its use and it is further evident from its producing haemorhages of the active kind

Of its use in diseases In Haemorhages of the active kind it must be Injurious Darwin divides them into Arterial and Venal Epistaxis is the most active of all In Haemoptysis I think it is injurious In Haemorrhoids which are sometimes owing to increased action of the Intestines it must be injurious but they are sometimes owing to an opposite state of the Bowels as in Old People and the Sedentary here it may be of service In Haemorrhagy Remitin owing to too great relaxation of the Fibres it must be of advantage Darwin says that in doses of ℥j it is the best cure for the Cox Box

In Menorrhagia it is of advantage by its Tonic power In Retentio Menses owing to debility of the general habit and perhaps of the vessels of the Uterus it is a

most valuable medicine combined with the oil of Savin which is an excellent Emanegogue I think it acts upon the Stomach as though it communicated to every part of the Body but in menses I think it often acts upon the System of the Blood vessels themselves Different medicines act much more on the Blood vessels than oth=ers allow though I do not grant as much as the humor=al pathologists ~~suppose~~ I think it is carried into the circulation from its being discovered in the Blood &. the blood is more highly colored when it is taken inter nally Dr Wright's experiment was Sal Martis given in repeated doses to a dog when opened the Liquor in the lac=teals appeared perfectly white there was no Chemical experiments to prove it

From some experiments I made when a Student I found Iron in the Lacteals and Thoracic Duct Dr Hordy a thought Wrights experiment conclusive be cause the Liquor did not turn black upon the addition of Solu=tion of Galls

Experiments made 60 years before Dr Hunters time found blue Stone in the Lacteals and Thoracic duct The good effects of Iron are often missed from its being given in two small doses the Saline preperations are apt to irritate the Stomach hence it should be given in small doses and increased The Rust is much better borne it has been given from 5 grains to Zvi it sets

easier on the Stomach when combined with Aromatics — Cullen prefers the Rust She Italians and Dr. Moor prefer the Filings I have given it with Cinnamon which prevents the Lax and griping occasioned by it

The Dose of Rust of Iron is from 5 to 20 or 30 Grains Filings of Iron dose Sal Martis dose from 3 or 4 grains to ℈j

Cuprum (Copper) — Of its Medicinal Properties

In its Metallic State it has considerable powers it is highly stimulant Cullen has placed it among the astringents but allows its Stimulant quality

Dr. Lewis says it is insoluble in its Metallic State or calcined and says it acts by its bulk when swallowed but he is mistaken it certainly is acted upon and is soluble in the Juices of Man

Its pernicous effects are various — Nausea then Vomiting pain Vertigo Inquietude of Mind Convulsions exanthematous Eruptions and Cutaneous affections bloody Stools Hæmeplegia Paraphigia head-ach &c tho not all in one Person I do not know which are the most common effects The Copper workmen with proper care live to as great an age as most people who work at Trades tho they carefully wash their hands and Face twice a week in Clear water

It affects other Animals tho it does not Fowls who prefer Copper water to Clean and no bad effects are produced in them It is observed that dogs who lick copper bars

are purged and destroyed

I never used it in its Metallic Form but I think it might be used with Caution I have observed its Salivating effects on a Child who swallowed Copper the mouth became Sore The Copper also lost some of its weight after passing through the Alimentary Canal it does therefore occasionally Salivate The different preperations are

Aruginis Acris (Verdigris) This is Copper corroded by Vegetable Acid It is astringent and Escharotic ℥j of Verdigris ℥iv of Honey and ℥vij of Vinegar form the Mel Egyptiacum It has been recommended for Carious Bones and is a quack remedy for Cancer It is used in Gleets with Spirit of Sal Ammoniac Dissolve 8 grains of Verdigris and add ℥vij of Oil of Olives according to Bell this may be used with Safety but a preperation of Verdigris ℥j Spirit of Sal Ammoniac ℥vij and Water ℥x is much Cauliter Verdigris has been found of great use in Cheneres It may be used in Powder Ointment or Solution In Solution it may be used from 1 grain to ℈j in ℥j of water

Vitriolum Cæruleum (Blue Vitrol) It is Emetic. It has been used in Intermittents every other day as an Emetic where the Bark fails. It has been given in pills of ¼ of a grain at a dose two or three times a day by Dr Donald Munro It has also been used in Conjuction with the Bark in Intermitents with great Success

Cuprum Ammoniacum This may be made by rub-
bing Zij of Blue Vitrol and Zijss of Sal Ammoniacum toge-
in a glass Mortar till they effervesce the whole will run
into a violet colored Mass which is to be rolled up in
paper and then to be dried for use upon Chalk it must
be kept in close Vials

It has been recommended in Epilepsy in Small Doses to
an Adult 1/4 of a grain twice a day increasing to 1 grain
six or seven times a day It has been of essential service
and is more manageable than the Blue Vitrol Accord
ing to Cullen it is generally desisted from when it fails
to do good in a Month tho I think it may be persisted
in a long time without any Inconvenience The worst
effect Copper produces is a kind of Paralysis this is ea-
=sily cured I cured a man after he had taken it two
years

It is a powerful Medicine its Stimulus is observed
in small doses it produces a slight sickness therfore
it should not be given on an empty Stomach the Even-
=ing is best on this account The dose at first maybe 1/8
of a grain

It also has been used in Dropsies Dr Cullen says
it is a powerful diuretic Boerhaave recommends it
in worms here it may act in two ways either direct-
ly as a Poison or as a Tonic giving the System power
to expell the worms It is an Escharotic In Scrop-
=ula where a flaccidity of the parts takes place it is

used from 2 grains to ℥j in a Solution From its astrin=
gent and Stimulating power it has been used in af=
fections of the Eyes It has also been of service in vener=
al Chancre

Luna (Silver) Of this I have had but little Expe=
=rience The Argentum Nitratum or lunar caustic made
by dissolving Silver in the Nitric Acid diluted it is u=
=sed as an Escharotic It may be used in Solution=
and applied to the parts with a camels hair pencil
and while it does not act and does not give much
pain it may be immediately rubbed off with another
pencil dipt in water

The Bilulae Lunaris or purging pills are made of
Nitrated Silver and are used in Epilepsy in small
doses Dr Simons of London cured several Cases with it
he gave 2/3 grains three times a day he obsenves that
it sometimes aggravates the disease and sometimes
cures it often acts as a purgative There is not a sin=
=gle Tonic that does not purge occasionally It has
been given in Angina Pectoris. Swediaur relates a
case of a Patient who became almost black from
the use of it but it wore off The dose is 1/8 a grain 3
times a day It has been carried to the dose of 3 grains
a day in an Epileptic patient in the Hospital with=
out being of any service to him. In the fifth volume of the

Annals of Medecine we find some facts in favor of the use of this Medicine in Epilepsy

Stannium (Tin) This is now justly neglected by all It was used in powder and according to Lewis acted in proportion to the Arsenic it contained It may be filed or rubbed hot in a Mortar or with Chalk and given for worms Dr Monro cured 5 cases of Epilepsy depending upon worms with it. As a Tonic I think it a feeble Medicine It has lost all its Character except as a vermi=fuge and in this it acts Mechanically as in fine pow=der it is inert It is soluble in the Gastric juice as well as Iron or Copper The dose is from ℈j to ℈j

Alimentary Matter Milk is the most important of the Alimentary Matters In speaking of it I shall confine myself to that which is obtained from the Human=kind the Asses and Cows milk is nearly allied to it

Milk when first drawn appears to be an homogenous Mass but by rest it undergoes a Spontaneous Seperation It is a compound fluid containing Cream Curds and whey or an Oily Coagulable and Aqueous portion

When at rest the Cream or Oily parts seperates first it is the thickest A seperation takes place much sooner in open vessels and exposed to a stream of air Also in pro=portion as the surface is larger and the oftener it is re=moved the sooner it is formed Boiling accelerates its Sepe=

=ration Air is detached from it and the swelling of the fluid shews great agitation The Theory of this effect is not very evident but seems to be that the oily parts are very mi=nutely diffused through the other parts and connected with them by the attraction of Cohesion and agitation is only necessary to disunite them this I believe is the Theory of making Butter

The State of the Air has an influence on Cream. Acids coagulate Milk into one Mass and the Seperation of Cream is interrupted and as ascescency and Coagula=tion are hastened by warm weather and retarded by cold so according to the State of the weather the Cream is greater or less Thunder forwards ascescency Diffe=rent circumstances in the State of Animals that af=ford it vary the proportion of the oily part

Of Incitantia or Stimulants

These are Medicines which increase all the exertion of all the Initative Motion They generally produce Costiveness and high colored Urine The general Nature of the Class Incitantia will be given under one of this Class viz —

Opium This is a powerful and Universal Stimulant though I am convinced with Dr Darwin that it is not the most powerful and valuable Stimulant the Solinacea are perhaps as much so I shall however place it here as the most important

It is obtained from the Papaver Somniferum of Linnaeus and is used by the Egytians instead of Wine on account of their Religion the fields are tilled for the purpose of raising it That commonly used is obtained from Persia Egypt and Smyrna in Cakes from 2 to 3j covered with the Leaves of Tobacco a species of Rumex or dock and of the Poppy It is of a brown Color in Cakes and of a Yellow Color in powder has a poisonous Smell & bitter and afterwards and Acrid hot pungent taste and by consent of parts irritates the Nostrils to Sneezing

It is obtaind sometimes in extract by boiling and by wounding the heads of the Poppy Kempfer says it is obtained by incision made in the Evening with a

fine edged knife Mr Ker informs us that the seeds are sown and that longitudinal incisions are made and repeated every Evening till Six or eight wounds are made Dr Crump says that the Opium obtained from English Poppies was stronger bitter and more pungent than that Imported but it gradually diminished in Virtue Its dark color is in some measure owing to the Iron Instruments made use of in preparing it When a piece of Glass or Shell is made use of in gathering it it is obtained red

Dr Ritcheson of New York says that which grew there was as strong as that usually imported but I hope neither its high price nor adulteration will yield to raising it in this country for Immorality goes hand in hand with its Culture in those countries where it is raised It is generally adulterated with the Extract of the Plant sometimes with Lettuce and Mr Ker says with Cow Dung It is however less impure than has generally been imagined In twelve grains I found only from 2 to 3½ grains of impurities and only ½ grain in some experiments

Of its effects on the Living System

We shall in a future Lecture speak of its effects in a healthy State its uses and abuses

Dr Crump applied a Solution of it to the Eyes Nor

Urethra and a part where the Cuticle was abraded The first effect was a pain heat and inflammation afterwards the Natural or Morbid sensibility was weakened Crumps experiments were made with ℥j of Opium in ℥ij of Water this poured into the Eyes immediately gave pain which continued ten minutes and inflammation with tears after 30 Minutes he poured some Spirit and Water into his Eye which pained more than the Opium The powder Snuffed up the Nostrils acted as Snuff used to do injected up the Urethra it gave him pain and sense of heat and some of it applied to the wrists where the Skin was abraded gave him pain

Dr Whyt made use of it externally applied to the Epigastric region where the bowels would not admit with advantage internally The present Dr Munro mentions a Case where fever and Spasm of the Mouth were produced by the application of an Opium Blister to the Temples They were relieved by Sinapisms of Opium and Camphor applied to the Feet The Spasms returned as soon as these Cataplasms were removed Dr Rittenhouse was relieved from a pain in his Stomach by Laudanum externally applied and what is remarkable it rendered him costive which often made him rather bear the Pain than apply it The external use of Laudanum has lately been revived in Italy and attended with decided effects Pain of opium that is abolished which is now allowed —

How does it produce its effects when externally applied
By its action on the extremities of the Nerves or not I believe
it acts partly by that way and by apsorbtion into the blood
vessels The effects of it on a child at the breast when taken
by the Mother I think favors this opinion

Of its effects when taken Internally or as it effects
the Vital Animal Functions —

Opium produces the following changes in the Vital Animal
Functions it renders the Pulse full strong and quick its
frequency is afterwards diminished the heat of the body is
somewhat increased the respiration is little affected
In a case of death from an over dose there was a slow
stertorous breathing as in apoplexy and it kills with all
the phenomena of Apoplexy Dr Cullen has a disease in his
order which he calls Apoplexia nervosa produced by Opium
Cicuta Fixed Air and drunkenness this last we know
produces a true apoplexy It is the Apoplexia febricosa
of Sauvages it is the effect of a Stimulating agent only

On the Pulse Writers differs as to its effects some say
it renders them quicker and stronger others slower Straight
is a secondary effect Bouerhaave says it encreases the Cir
culation analogous to Wine and Dr Cullen believes it a
Stimulant in his old edition of the Materia Medica
with good sense but attend his opinion in his later —
Edition of the same Work ——

The experiments of Dr Crumpe divide its Stimulant effects on the Pulse at 12 Oclock he toole one grain of Opium his pulse being at the Natural Standard of 70 Stroakes in a Minute

In Minutes	2,	5,	10,	15,	20,	35,	50
Number of Strokes	70,	74	76	76	74	72	70

and at the end of an hour 70 he was accustomed to the use of it and experienced nothing of fulnefs In Experiment second he gave it to a healthy young Man who never took it before at 10 Oclock 1 grain

In Minutes	5	10,	15,	25,	35,	40,	50,	60,	90,	110,	135,
Number of Strokes	44,	44,	44,	50,	54,	48,	46,	46,	42,	40,	44,

his pulse was naturally 44 Strokes in a Minute His pulse was increased in frequency and fulnefs the fulnefs in an hour decreased a heavinefs was the effect vinegar relieved the Nausea

Both my predecefsors taught its action to be Sedative the arguments against it are not as compleat as might be Opium increases in a considerable degree the frequency and fulnefs of the pulse Hallers gives as a Striking Testimony of its Stimulant quality on himself by using in way of a Glyster it raised his pulse from 75 to 88 in the Morning if costiveneſs attended it was Sometimes up to 100 It evidently increased the pulsations of the heart of a frog which he laid open —

Its primary effects are to render the pulse more fre-

quent and at the same time fuller In making these ex
periments it is of the utmost consequence to pay attention
to the immediate consequences of Opium according to Wir=
=tingen after taking a dose of it the pulse arose from 76
to 86 in nine minutes It is owing to an inattention
to this circumstance that we hear and read so much
of its sedative operation especially if given in a Liquid
State. The poison of a rattle snake in the month of March
killed a small dog in five minutes I have often exper=
ienced a flushing in the face in ten minutes after ta=
=king Laudanum

Dr Samuel Bard of New York wrote an Inaugural
dissertation De Iebibus opii in Edinburgh in 1773 in
which he endeavors to improve that Opium is a direct
sedative he informed me a few years ago that Dr Cul=
len set him to experimenting on it and in consequence
of his experiments Dr Cullen relinquished his former
opinion of its being a Stimulant his experiments are
not conclusive as he takes no notice of the Pulse untill
65 minutes after taking it

Mr Crump in his experiments found the pulse in
creased most after a half an hour had elapsed after
the increase it became slower if the dose be considera=
=ble the pulse falls short of its natural Standard if
very great as when death is the Consequence an inter=
mission is often felt

Mr Boulton always found the frequency increased and the diameters of the Arteries increased also The primary effects it is said decrease the heat of the body by the Thermometer but this is owing to its increasing perspiration and consequently evaporation which produces cold I have observed no effect more common than a burning of the face and palms of the hands till a free perspiration is induced a dry Tongue and an increased flow of Urine are also frequently produced and Finitus Aurium which evidently are owing to its stimulant qualities attended by a febrile State of the System, of the head and an accumulation of blood in the Carotid Arteries In a case of death from an over dose Dr Murray found the vessels of the head turgid with blood.

In common doses respiration is but little affected In a case where an ounce was taken the Respiration was Stertorous the pulse full and as slow as 45 in a minute he was now taken with delirium and the pulse was so quick it was impossible to count it Whither this was the effect of an Emetic (a full dose) I have: always I do not pretend to say

Of its effects on the Natural Functions

Whether taken in large or small doses the effect is frequently an impaired appetite and vomiting The discharge of the Intestines is less and in others increased

Mr Crumpe thinks the secretions and excretions are all lessened except that of the Skin. here he is mistaken I believe with Dr Darwin that the Bile is encreased tho he likewise thinks than the Semen saliva and every other secretion is increased except that by the Skin and that the thinner parts are absorbed and thus appear lessened but he has no facts to prove this

The effects of Opium in lessening appetite and exciting ~~appetite~~ vomiting are well known this arises not only from a large but likewise from a small dose The Eastern Nations know so well the use of opium in lessening the appetite that during a famine which prevailed they purchased it at enormous prices and thereby lessened the pain of death from Famine

It sometimes proves laxative perhaps this is when the Canal is in a torpid state Dr Stohl of Vienna says that in Colica Pictonum Opium often acts as a Cathartic here there is torpor of the Alimentary Canal Dr Michaelis says that large doses of Opium increases the flow of the Saliva It sometimes proves purgative in Diarhoea It is remarkable that it increases the discharge of Flatus from the bowels therefore deserves to be placed at the head of Carminatives this property belongs to all other Narcotic Medicines

Is Opium a diuretic – Some writers say it is and use it in Dropsy I have one patient in whom it con

stantly proves diuretic All writers however agree that it increases the discharge from the Skin the perspiration continues after the Pulse is reduced in frequency It also produces itching of the Skin this generally may be prevented by drinking weak tea which favors Perspiration Sometimes an Eruption like the Miliaria is produced Sometimes it produces disagreable boils Bocerhaave found it increase the secretion of the Gall bladder as well as other writers a proof this of its being a diffusive Stimulus (he made his experiments on dogs)

Crumpe found it diminish all the secretions except that from the Skin Darwin says they were all increased by it the excretions are less of a duper colour and thicker

Opium seems to possess somewhat of a Specific Stimulus upon the Liver it commonly produces some pain about the region of the Liver Hilarity of Mind is an argument in favor of its Stimulating property this increases untill delirium is produced if the dose be greater the delirium is of the Joyous kind in this it differs from other Narcotics (of which henbane is the nearest allied)

It produces erectio penis After delirium the mind becomes Stupid and Languid and the person inclines to Sleep If the dose is considerable Tremors convulsions vertiges &c are produced in proportion to the dose and the Constitution of the sufferer it is however not uniform in its effects In common doses it does not always produce con

=vulsions its effects in such cases are similar to those of Wine and Ardent Spirits

From actual experiments made I am persuaded that Vinegar contributes to moderate the effects of Opium If Vinegar be taken before or at the same time with Opium it lessens its Narcotic quality I found that double the quantity of Opium or henbane might be taken with Vinegar as without it The mineral acids have no power this way The dulness and heaviness which follow the use of Opium may be relieved by the liberal use of acids

Dr Russel observes that the use of Opium is not so common among the Turks as we imagine but he has seen them take it to the amount of two or three drachms at a time When a person finds himself in great distress he takes a piece of Opium as large as the top of his thumb and drinks immediately afterwards a glass of Vinegar It exhilerates him to a remarkable degree at first but eventually destroys him Darwin places Opium at the head of Incitantia but in this I do not follow him

In Typhus that is in low nervous Fever when opium is given every hour and then not continued or forgot the Skin becomes cold which is immediately removed by a dose of Opium Again I had two opportunities of seeing the good effects of Opium in Mania from the use

of Ardent Spirits in one a return of Mania was prevented for 15 Months the patient Mrs F— lost a child in 1793 from which she took the use of brandy up to a Quart a day she was relieved by taking a tea spoonfull of brandy with 100 drops of Laudanum in it

Opium in its operation appears to be a peculiar Stimulus The different degrees of durability and diffusibility of excitement that Stimuli produce accounts for the Operation of Opium Excitement is in proportion to the degree of diffusibility thus Opium is a higher Stimulus than Camphor but its Stimulant power is exhausted in 1/4 of the time that Camphor is I think Opium is inferior as a Stimulus to Belladona and some other Medicines but I place it at the head of Materia Medica on account of its being the most Important as we are best acquainted with its effects - Acotin Anodyne is garlic tho never taken notice of as such - it is a diffusible Stimulus

Opium then is a Stimulus - it readily diffuses itself thro the whole System and is easily exhausted It increases the frequency and fulness of the pulse as well as the heat of the body and the Perspiration this last to so great a height that I have been obliged to desist from its use in Typhus Fever

It exhilerates the Mind and induces drowsiness removes pain when arising from Morbid Sensibility and increases the excitement of the System and is rapidly ex-

hausted thus rendering the System insensible to other Stimulus less than that which the System has been de=
=prived of If the dose has been considerable debility Stupor and &c follow the pulse intermits the not al ways also so and if the dose has been large enough death ensues Large doses of Opium kill by Inducing a true Apoplexy The vessels of the Brain on dissection appear turgid with blood in the same manner as after death from ardent Spirits

Of the Analysis of Opium ——

It is a Gum Resin according to Alston the gum and resin are in about equal proportions Opium is not the better for purification as recommended by the London College

Coumpe made the following experiment with the Resin I took says he 2 grains of the Resin my pulse was at 70 in the Minute

In Minutes	5	15	30	35	40	50	60	90
Number of Strokes	75	80	70	72	62	65	65	66

he afterwards became Sleepy Slept for an hour and awoke with a slight vertigo

Experiment 2nd I took (says he) 2 grains of Gum it pro=
=duced no effects he then took 5 grains in ℥ss of Water in five Minutes it raised the pulse but two and in 15 minutes but 4 Strokes its effects being similar to that of the Resin tho its Stimulus is not so high

The pure Resin when rubbed between the fingers has more of the smell of opium than the Gum The Gummy part has more of the smell of extract of Liquorice than opium it possesses more of the bitter taste than the Resin

The Gum therefor appears to be less powerful than the Resin tho by no means inert Dr Crumpe supposes the resin only active and that the gum gives solubility to it in the Gastric juice It is been supposed that all gums are destitute of a Narcotic power though the Gums of Straumonium hemlock &c are not The Analysis of Opium applies to most of the Narcotics as Cicuta Henbane &c

Mr Bruce supposes that alls Gums are incapable of injuring the Constitution essentially but it may here be observed that the Able Fontana found the poison of a viper to be a true Gum

The distilled water of Opium produced no effect Fiji given to a dog produced no uneasiness. Upon the whole opium is a compound of a Gum Resin essential salt and Earth and impurities ~~not~~ insoluble in water or Spirit The Gum when seperated is bitter A late french writer has found Opium to contain a small quantity of Gluten or vegeto materia animalis as it is termed

Of the use of Opium in Diseases

Continued Fevers

Nosological writers divide these Fevers into three kinds viz Typhus Synochus and Synocha according to Cullen tho I dont believe they arise from different miasmata Synochus is supposed to arise from Marsh miasmata and Curry of Liverpool has fully proven that Typhus may be generated by the putrid stagnating water of a Cellar with all the Phenomena of a Jail Fever I think I have observed the same from the miasmata which produce common intermittents The inflammatory symptoms often run high in the first stage the duration however is various I believe Typhus may very often be of an Inflammatory Nature and of course Opium is improper in this disease at first

The Plague is a Stimulus of the most powerful kind and the inflammatory stage of short duration hence no doubt the reason that writers deny its existence The Poison of the Viper and the Plague are two varieties of Species There is a delirium which attends the low and advanced state of Fevers which does not depend on Inflammation but upon extreme debility here Opium acts with great advantage

The Sweat which sometimes follows the exhibition of Opium in Typhus almost exhausts the patient

here I exhibit the Elixir Vitrol Opium combined with Camphor was given with great advantage by Dr Campbell he used the following formula ℞ Opii grs vj Camphor grs 10 or 15 to be taken in proper doses at bed time he sometimes uses the following formulae ℞ Liquid gtt 60 Julep Camp: ℥ss to this were there was great heat &c he added Antimonial Wine

Yellow Fever I have exhibited in pain of the Liver which often attends this disease but it occasioned a fullness which was detrimental where the pulse is small and feeble and there is no topical inflammation Opium is of essential service

Intermittents The use of Opium in this disease is no new Remedy Dr ___ says that one grain given an hour before the Paroxysm prevents or at least lightens it. Lind gave it in the hot Stage but you will be very cautious in giving it here for I think it must be highly injurious In Tremors and Subsultus Tendinum which attend Fevers and are a sign of great debility Opium is superior to any other Medicine The use (or rather abuse) of Opium in Phlegmasiae must be injurious

Pneumonia Here reducing the activity of the Sanguiferous System and a cool Regimen are proper consequently opium must be improper Some Practitioners however recommend it in the earliest Stage viz De Haen Huxham and

Hamilton with Mercurials and Antimonials Opium may be given more largely when given with Mercurials after Inflammatory Symptoms are removed All agree that Opium is useful but caution is necessary in the use of it It certainly promotes expectoration the matter is more concocted owing as Darwin Supposes to the ~~matter~~ thinner parts of the matter being absorbed it commonly does harm unless it promotes perspiration The irritation that succeeds this disease is only relieved by Opium The following mixture is generally used in the Dispensatory of this City Rx: Paregoric ℥j Vin: Antimo: from 60 to 80 or 100 drops gum Arabic and Extract of Liquorice each ℥ij water ℥viij

Rheumatism Of this there are two Species or Varieties the acute and the Chronic the former attended by an inflammatory state of the parts affected the latter with debility of the part or System

In the acute Rheumatism purging venesection sweating blisters and a cool regimen after the violence of the disease is overcome as the pain is troublesome sweating for 8, 10, or 24 hours should be used and repeated for this purpose no formulae is better adapted than the Pulv: Doveii of the London Pharmacopei Rx Gum Opii Pulv: Ipechicacha ℥j Vitriolated Tartar ℥j 10 grains of this powder contains about one grain of Opium I have often given from

10 to 25 grains of this powder every two hours the 10 grains untill a sweat is produced it is to be given in the morning after sleep Sleping is unfavorable to sweating the patient is to be covered up with blankets no drink is to be taken the first 15 minutes after taking the powder afterwards drinks may be taken copiously if the sweat is not univesal hot bricks may be applied to the feet Drs Herman and Hamilton have revived the practice of using Dovers powder in America Dovers Powder in doses of from 20 to 30 grains is apt to excite vomiting I have improved the Composition by substituting Gum Arabic in place of the vitrolated Tartar I think it less apt to excite vomiting you should not let your patient drink for 1/2 or 3/4 of an hour after taking it he is certain that in this manner it is it less apt to vomit

(Vide Pottinger

Small Pox In the mild and distinct kind it is seldom usefull during the inflammatory Stage it is hurtful unless convulsions here it is given with perfect safety and advantage In the Suppurative Stage of the confluent kind it is singularly benificial and should be given two or three times a day The secondary fever is of the inflammatory kind it is here improper venesection &c is most proper Dr Dover observes that where a spontaneous Salivation comes on it is the effect in the secondary fever which follows the Small pox was advised by Sydenham to be treated with venesection &c Cullen advises Cordials

Measles This disease is better known in America than any other Country It is often attended with pul monic Complaints and requires the Lancet I never had a case under my care in which I did not bleed or at least Opium should never be used untill after deple= tion and then with great caution The Cough is gene= rally violent and he may fly to Opium but here it is hurtful the Lancet is to be used

Haemorrhagies These I formerly divided into active and Passive or according to Darwin into arterial and venal in the former it is improper excepting after venesection In haemorrhagies of the passive kind where it depends on debility of the part or of the whole Syst tem Opium is used with advantage Epistaxis is all= most always an haemorrhagy of the active kind here I never heard of but one case where Opium was used and this was in Crumpe I think that in most cases of haemorhoids Opium must do harm I have seen Yel= =low Fever appear in this form In Haemoptysis— where the Cough is troublesome it may be given with advantage There is an haemorhagy of the Spasmod= ic kind in which opium is of the greatest service

Phthisis Pulmonalis Here opium is improper— there is great nicety required even when it is used as a palliative

Dysentery Dr Richter says it relieves pain and pro=
=motes diaphoresis and I have always used opium
and never saw it do injury it is impossible indeed
to manage the disease without it

Tetanus In this disease I have had but little ex=
perience it is a disease of the Sthenic kind An anony=
mous writer in a work entitled "Practical Observations
on the diseases of the West Indies says he has given 20
℥ of Laudanum in this disease in 24 hours time the
patient recovered The success of Drs Rush Rowley &c is
rather against the use of Opium in Tetanus perhaps
sometimes owing to the smallness of the dose Dr Gloster
relates in the Philisophical Transactions that he gave
1500 grains of solid opium in 17 days and the patient re=
covered In two cases which came under my notice one re=
=covered which I ascribed to venesection the other died
under enormous doses of Ether I gave this patient 10 or 12
℥ of Ether a day

Hydrophobia This is nearly allied to Tetanus—
from my own experience I can say nothing of it Many
facts prove that it is a violently inflammatory disease
this we may infer from its Symptoms cause and debili
=tating plan of Cure Secondly it has been produced from
the bite of a rattle snake likewise from vegetable poi=
=sons as the James-Town weed (datura Stramonium) and
℈ Camphor Boerhaave seems to have had a just Idea

of it he considered it as inflammation of the very highest degree and recommends venesection even to fainting and from a large orifice

The cure seems to consist in the most debilitating plan 120 Oz by venesection and the Patient soaked in cold water Dr Nugent considers Opium of the most essential service and Hillary recommends it after venesection

Chorea St Viti Crumpe mentions one case alleviated for some time by opium where Electricity and other remedies failed tho the patient finally fell a victim to it Here is but little opportunity of seeing this disease in this Country Opium is exhibited in most cases with advantage Venesection purges and blisters were used by Sydenham This disease demands the Tonic plan as Cortex peruvianus Iron Cold Bath Cordial diet and fresh air It is not true that it always affects before puberty tho here it occurs after this period there is little hopes of a cure I saw one case after Puberty tho 99 out of 100 cases happen before Puberty

Epilepsy Writers differ with respect to the use of Opium in this disease Its pathology is little known but this much we are certain of that it arises from different causes and in different conditions of the System From large Haemorrhagies and debility it is rare if this were a cause the practice of Botallus and others would produce it If it arose from mere debility the disease would be more

common than it rarely is by in Typhus &c I think it is often accompanied by a plethoric State of the System It often arises from an irritability of the nervous System here Opium promises a great deal the fits are often very regular here it might be cured

In all those cases which depend on Aura Epileptica Opium is useful (at the time of the German Church) I cured a case by this remedy it always attacked in the Sleep I prevented the return of the fits here by Opium

Why does it so frequently attack in Sleep I think the horizontal posture warmth of the bed Stove rooms &c favor it Here palpitation of the heart often depends upon the organic structure of the viscera it is often Symptomatic and often Spasmodic here opium is proper and of Service

Asthma There are cases of Asthma in which Opium is injurious and others in which it does good it sometimes depends on fullness of blood in the Lungs here venesection is the remedy where it is of the Spasmodic kind Opium may be used with advantage I have seen Asthma return periodically in the form of an Intermittent I never used opium here but administered Bark

Pertussis (or Hooping Cough) This is often with considerable fever and difficulty of breathing here venesection

is the remedy In the second Stage which is often kept up by habit Opium puts a Stop to it 60 drops of Oil of Amber cured it in a woman after Opium had fail ed this case was of 6 Months standing

Pyrosis (or Water brash) This is a common disease in Sweden and Scotland it is said to be common in the Neighborhood of Fort Pitt in this State Salt and Smoked meats are said to increase it therefore meat should be used It is a disease which often con=tinues thro life some have given Nux Vomica where it is painfull nothing but Opium gives relief I consider it as a higher Stage of Dyspepsia it is of=ten connected with intemperance In Pyrosis Dr Cul=len recommends a Change of living from Salt and Smo=ked meats to farinacea I cured one of the most violent cases I ever saw with Oil of Amber I believe it is connected with particular Climates or States of the Atmosphere I have found it most frequent in moist Climates

Cholic Where the pulse is febrile venesection should be used If costiveness attends purges are obvious here I combine Opium with purges In hysteria and cholic arising from passions of the Mind Opium is use ful I gave from 40 to 100 drops a Night in Colica

Dictonum Stahl says it acts as a purgative and is of the greatest service

Cholera In this disease it is acknowledged to be beneficial by almost every physician

Diarrhoea Here every physician knows its use there is a diarrhoea in summer which attacks old people and partakes of the Typhus Stamp here Opium and Wine are the Remedies

Hysteria This is much allied to Epilepsy if plethoric Opium is injurious if attended with Irregular Motions and no plethora it is of use If it depends upon a Mobility of the Nervous System it is of use

Mania This many times arises from a peculiar Organization of the Brain The Stomach in Mania will bear 10 grains of Tartar Emetic before it operates Opiates given before the exhibition of an Emetic render it easier Where Spirituous Liquors have been the cause Opium is an excellent remedy Heppfir in his Foria Apoplectiocorum says he cured many cases of Mania by giving Opium in Doses of 15 grains at a time others however have not been so unfortunate In Mania from puerperal fever and from Spirituous Liquors Opium is of essential service

Gangrene (of the Toes) Mr Bott found phlebotomy inad-

missible and opium the only remedy In ulcers of a bad kind Opium is given with advantage where the powers are sunk Opium sometimes salivates Calomel and corrosive sublimate are best used when combined with Opium they do not then gripe nor run off by Stool

Narcotics

We proceed with the Sedentia of Cullen - they are all stimulants and we come now to speak of one which is more powerful than Opium itself - the Opium is not diffusive

Datura Strammonium (or James Town weed) This is very common about the City and is known by the name of James Town weed French chesnut &c Its smell is poisonous and disagreable and it is one of the plants from which the bees extract a narcotic honey It poisons some animals but goats feed on it with impunity as well as the seed vessels and seed

The extract &c is said to be sedative but this is a mistake Kempfer and Albinus tell us that some eastern nations who are forbidden by their religion to use wine exhilirate and intoxicate themselves by the use of this substance It accelerates the circulation promotes sweat and Urine creates purging and produces inflammation in the Stomach brain &c

It is fully proved by Dr Cooper in his inaugural dis-

sertation on Stramonium to be a Stimulant

Experiment 1st To a person whose pulse was 72 in a minute he gave 1 grain in 1 ℥ of water and the pulse beat

In Minutes	5	10	15	20	30	35	40	60
Number of Strokes	72	73	74	73	73	71	71	85

This Experiment proves that its effects are more power= ful and transitory than Opium itself in ten minutes the force of the pulse was increased in 20 Dull 30 doing in 40 Sense and life unequal in 50 a cup of tea rai= sed his pulse and caused unusual heat during the Night

Experiment 2nd To a man 40 years old he gave 6 grains of the Leaves of this medicine in powder his pulse beating 80 Strokes in a Minute

In Minutes	3.	6.	10.	15.	20.	25.	30.	35.	40.	45.	50.	55.	60.	65.	70.	75.	80.	100.
Number of Strokes	80.	84.	78.	77.	75.	74.	74.	74.	77.	79.	80.	80.	80.	86.	87.	97.	100.	105.

In no instance do we find an equal quantity of opium do this. the eyes became dim and the hands warmer in 80 minutes 10 Oz of blood was drawn this removed the great thirst the blood was strongly buffed Stork used the ex= =tract this is subject to great fallacy Dr Archer used Stramonium with great advantage in Epilepsy but with low diet and Phlebotomy he gave 2 grains of the pow dered seed three times a day

In the Pennsylvania Hospital I gave it in Epilepsy it was evidently injurious and increased the dilatation of the Eye The dose of the extract is from one to ten grains

a day it specfically affects the brain

. In a case of Mania in the Pennsylvania Hospital (May Hill) I gave it up to 4 grains of the extract a day I relieved her a number of times Sir John St Clairs Boys who eat some of this datura in the Spring while they were here were all seized with Tetanus many of them died some recovered I think that Strammonium is a more powerful tho much less diffusive Stimulant than Opium the next proced to a Medicine of all others the nearest allied to Opium ⅋

Hyosciamus Niger (Black Henbane) This is common in Europe and begins to look like a Native of this country It grows pegently about dunghills &c It is undoubtedly a Stimulant Haller mentions a case were 3ij were taken it suddenly produced Cholic pains which were relieved by vomiting it up The Root produced heat of the Fauces madness and double vision which Symptoms were relieved by venesection purging and the Cold Bath vinegar relieves some of the Symptoms Henbane often acts as a diuretic it likewise very generally proves Laxative Opium on the other hand very generally produces Costiveness here then they differ I think it is always best to begin with this medicine in the dose of one grain the same with Opium and Stramonium Examination of persons who were killed

by Henbane proved that the Meninges of the Brain were turgid with blood and black spots were found in the Stomach Henbane nevertheless is very manageable the dose is from 1 grain to 2, 3 or even to 8 or 15 a day I gave it up to 4 grains a day to a person in Edinburgh who was accustomed to the use of it It is more powerful than Opium in inducing sleep and it may be given with as much safety it is often agreable when Opium is disagreable In a case of Mania in consultation with Dr Parke Opium increased the Symptoms without producing sleep — when henbane produced sleep with advantage.

Henbane has produced Salivation Greading mentions a large affection of the Parotid Glands produced by it Opium produces a similar effect this fact shews the affinity of henbane to some of the poisons of a Malignant Nature In the Mania which succeeds puerperal Fever several authors say it is of advantage Cullen never found more good to arise from it than Opium. It is an agreable Supor ific its Chemical Analysis is more like Opium than any other Medicine and its properties are the same Its extract differs in having a peculiar smell Mr Bell found it of Service in the

Conium Maculatum (or Hemlock) It is a native

of Europe and Sicilie it is never found indigenous in this country It belongs to the Class called Umbellifera which contains poisonous or suspicious plants I wish the Name Conium to be retained as it is preferable to the name Cicuta by which it is commonly called The Cicuta is extremely deleterious so that there is no exhibiting it with safety Conium is a great name Cullen classes it among Sedatives I think it is a much weaker Stimullant than thos before mentioned as the frequency and fullness of the pulse are less manifest after its use

The following are the effects of a large dose of Conium viz great anxiety cardialga vomiting loss of appetite hic=cough vertigo Stupor loss of Speech (which continues the whole of the persons life) convulsions blindness salivation flow of urine and low Stools these are the effects of a Large dose tho they are not to be supposed all to occur in one and the same person

Dissections of Animals killed by this Vegetable confirm the Inflammation of the Stomach and intes=tines Dr Lewis Basaltine has proved that it pro=duces a salivation as might have been supposed *a priori* from the same effect being produced by opium datura Stramonium henbane and Camphor I do not think the Athenians poisoned their State prisoners with the Conium as the moderns have supposed le=

cause it never poisons decidedly even in large doses convulsions are frequently induced and the patient re=covers now we are told the poison made use of by the ancients produced a placid kind of death without pain probably it was by the plant mentioned by Dr Green=away of Virginia in the 3rd volume of the Philosoph=ical Transactions

In 1760 Dr Storke of Vienna introduced Cicuta into Notice for the cure of Cancerous affections he gave it in doses of from 1 grain to ℥j it has had fair trial in Britain tho the opinions of the first physi=cians there are various some calling it inert others saying the happiest effects are produced from it Re=fer you to a paper written by Mark Akenside in the Philiosophical Transactions Dr Shippen writ=ten upon the good effects of this medicine in Dr Ake=-sides experiments Dr Fothergill speaks favorably of it Dr Rutty likewise recommended it tho it is not a Specific for cancer as Storke has affirmed In Scrophulous cancers venereal sores &c it has been giv=en with the happiest effects It has lately been used in the form of a Bath this must be varied accord=ing to circumstances ℔ss of the seeds and a handful of the leaves and flowers (the latter of these are inert) are to be boiled in a copper vessel with 8 gallons of water down to 6 and this is to be poured into a trough of water Dr Ham

=ilton used it in a cancerous Scrotum and cured it in a month In parts to which it is not easily applied as in the rectum Vagina &c it is to be used in the form of a Bath by means of Syringes

Hemlock still supports its character in Scrophula in which complaint I have given it to the amount of 45 grains and cured in six weeks a Scrophulous ul= cer in the Neck but here the sores were dressed with verdigris ointment Dr Hulme used it with good ef= fects in Lepra tho the patient died previous to his death the scales all came off It has decided effects on the Skin all those substances abovementioned have this property more than opium itself

Mr John Hunter recommends it in Syphilis — Mr Bell found it useful in ulcers that succeeded buboes attended with pain and fever of the Hectic kind he found the expresst juice the best It has been recommended by Dr Pearson in Consumption Vitrol= ic Ether is to be impregnated with Hemlock and the Vapor is to be inhaled three or four times a day Zfs of hemlock to Zj of Ether The first effects of hem= lock inhaled in this manner are an agreable cool= ness about the heart and cessation of dyspnoea I have nothing to say of this practice from experience Hemlock is said to be a valuable medicine in hoop= ing cough the dose is to a child six months old ⅓ grain

one year one grain afterwards using ½ a grain for each year

A plant called Jools parsley Aethusia Cynapium has been very often mistaken for Hemlock the only difference known is that the seed is not striated if striped it is certainly hemlock

Hemlock Dropwort This few have seldom used a man was accidentally cured of Lepra by eating this plant which he took for water parsnips

Laurus Cerasus Of this I have no experience It is a species of the Cherry or Plumb Tree of the Prunus Cerasus of Linnaeus you are not however to confound it with the Laurus of this Country this is the Kalmia Latifolia a different plant from the Laurus Cerasus

Dr Cullen says it is a Sedative but I believe it to be a Stimulus of the first degree Darwin classes it with the Incitantia We know that Tetanus is only produced by powerful Stimulants we know that hemlock and Stramonium Camphor Laurus Cerasus &c have produced this effect Convulsions 99 times out of the 100 are the effects of Stimulating causes applied to the System The poisonous quality resides in the volatile part or essential Oil

Dr Cullen supposed it acted on the Nervous System different from all mother Narcotics It does not produce sleep for it kills too soon to produce this effect It is said that ℥j of the distilled water will bring on Convulsions

when I will not the reason is that Death is almost instantaneous from this last dose without inflammation or change in the fluid There are other appearances which prove its action the Lungs are inflamed the veins distended and the Arteries empty

It is but little employed in medical practice it may be a valuable Medicine but it ought to be used with religious caution Dr Langrith gave it in agues without specifying the dose. Dr Donovan uses the Leaves in Hysteria with no ill consequences but rather with advantage

Rhododendron Chrysanthemum I never spoke of this Medicine in my former Lectures the reason I now mention it is because the Medical Society of this City have offered a premium for the best written paper on this the Rhododendron maximum or Mountain Laurel of this country I think the virtues of this will be found nearly if not exactly the same with the Rhododendron Chrysanthemum of Europe

This is the Thea of the Tartars who use a decoction of it as a substitute for tea It has been recommended in Gout Rheumatism and Syphilis Dr Home says he found it Narcotic producing a small weak pulse In some cases he found it Emetic owing to the Acrility it possesses It occasions some constriction of the Fauces Fit of

the plant is infused in Zviij of Water for 24 hours it is then to be boiled down to Zvij the dose from Zfs to Zij to be repeated after a few hours and continued if occasion requires This plant however has not been introduced in= =to Britain It is a Native of Siberia chiefly found in mountanous situations and flowering in June and July Haelpin remarks with respect to this infusion= that when taken internally it produces a feverish heat a kind of Intoxication and sometimes a Stupor and loss of Senses at the same time the Patient feels an irregular pricking sensation in his Limbs or other parts of his body The intoxication soon goes off Besides vomiting and purging this medicine is said to produce sweat on the part affected with Rheumatism It has how= =ever been used for two years on a taste without any ill effects whatever being produced Cullen takes no notice of this Medicine and I can say nothing of it myself from experience

Kalmia Latifolia (Lamd) Little is known concern= ing the Medical properties of this Medicine It is a poi= sonous plant and has long been known to kill horses many of Braddock's horses were killed by it before his de= feat Sheep and Deer have been killed by it and dogs who have fed on the intestines of Sheep that have been destroyed by it have been poisoned Concerning its medi=

cal properties physicians know little An Empiric in Lancaster county uses it in Tania Capitis the manner in which he uses it is by rubbing it down with Vi= =tre I used it in the same way untill lately when the Public attention was called to the Nitric acid in the cure of certain diseases thinking the Vitre might act in the same manner I laid it aside and used Gum= =Arabic It is necessary to use this Medicine in small doses as it it is very active when recent to a child 4 years old I gave 2 grains venturing up to 8 or 10 grains I gave it in one of the worst cases I ever saw and with advantage I could find no sensible effect u= =pon the pulse &c excepting a flushing in the face

Likewise gave it in Syphilis - it did some good and is far superior to opium An ointment of it external= =ly applied to foul ulcers from old Bubols was made use of with advantage

Atropha Belladona (or Deadly Nightshade) This is the most powerful of all the Narcotics and if I am not mistaken it ranks higher than Opium Its active prop= erties lie in the berries leaves and root Its effects from some experiments are as follows Dryness of the fauces= Nausea difficult deglutition inarticulate Speech= of urine pulse full and quick congestion of the head Vertigo drunkenness dull eye and dilatation of the pupil

to those accustomed to its use its effects are not so great Infants experience no inconvenience from a dose in proportion to their age excepting redness of the Cheeks and heat Sometimes it produces a Swelling of the face a loquacity or staring silence torpor and deep Sleep and copious perspiration From a large dose has been produced Gangrene and Death in every instance the Blood has had a crust The Berries diminish the sensibility of the Stomach 14 grains of Tartar Emetic would hardly operate when a large dose had been taken In this country accidents from it are not uncommon where it has been discovered I have given ℈j of white vitrol without effect white vitrol and Ipecacuana are used as Emetics. It has been recommended in Cancer by Gesner and Quier and externally Junker and Cullens facts prove it to be a powerful and useful plant Cullen relieved some cases of Cancer by it It is given in doses of ½ grain to infants 6 Months old for hooping cough I have never used it It is not an indigenous plant of this country nor is it kept in our Shops it cannot be obtained here

We here conclude our account of Narcotics allied to Opium there remain Some which possess something of this power viz

Camphor I have no difficulty in arranging this un

der the head of Stimulants tho Cullen places it as a Sedative Its stimulating quality is not so manifest as that of Datura Stramonium Hyoscamus and Belladona The reason of its being so much neglected is owing to physicians not being unable to make up their minds concerning its effects on the Human System

It is the produce of different vegetables but it is procincipally obtained from one tree called Laurus Camphora our Laurus Safsafras and Spice wood or Laurus Benzoin are Species of one Genera It is the produce of a tree growing in the East Indies and Japan Upon the tongue it produces first a Sense of Coldness then of heat which gradually extends to the Stomach Water diffolves a small quantity of it It is easily suspended by a vegetable Mucilage Water distilled upon it takes up its taste and Smell The common Camphor has a bitter acrid taste but the pure has not nor is it near so nauseous close from ij to ℥ss When chewed it adheres to the Teeth and smells like Rosemary exposed to the Air it gradually flies off in Vapour and this more so in a cold and moist air It readily diffolves in double its quantity of Spirit of Wine

It is soluble in the expressed and ffsential oils. Myrh renders it soluble in water 6 grains of Myrrh is sufficient for ℥ss of Camphor this forms one of the neatest preparations of Camphor It is soluble in the mineral acids Distilled with the Nitric acid Camphoric acid is

obtained this does not differ much from the Oxalic Acid
Camphor mixed with Argilla or Clay and distilled forms
a yellowish oil called Oleum Camphora

Camphor is a substance different from any other we are
acquainted with the herb peppermint affords it It has sev=
=eral of the properties of essential oil aether and Resins it
is likewise allied to the Gums and volatile Salts &c

Effects of Camphor It is a curious fact that in
insects are more readily destroyed by it in Summer than
in Winter and more while a South wind than while
a North wind blows owing to the exhalation being great=
=er Moths are last affected by it Frogs put into a glass
vessel with it are soon seized with distortions anxiety
Stupor and Death Its effects are not constant and
Uniform it produced trembling and fury in some whilst
others were in a placid Sleep this was in hot blooded
Animals as Birds Dogs Sheep &c

It sometimes purges vomits and Salivates frequently
increasing the Urine and sometimes kills A piece was
thrown off the Stomach which had lost nothing of its
weight a convincing proof this that its activity resides in
its volatile parts Sheep were violently affected by Zij and
even by Zfs Zifs produced Hydrophobia in one from
which it never recovered Dr Lobstein made the same ob
servation on Stramonium it produced constriction of the fau=
=ces and the Animal seemed to labor under Hydrophobia—

Dr De Witt mentions a case of Hydrophobia which occurred in Albany from Stramonium Dissection after death produced by it shews the Stomach Meninges of the Brain the Lungs Heart and Intestines to be inflamed Zij in solution thrown into the Rectum of a Rabbit produced Inflammation and Death

From these experiments it may be concluded that its active properties resides wholly in the Vapor and that this Vapor acts on the Nerves and Brain is demonstrated from its being found in a solid state without having lost any of its weight and that it does not enter the Blood Vessels depriving the Stomach of its Sensibility I believe it does not enter the Circulation I detected it in the Sweat of a Patient to whom I had given it in Typhus Fever Darwin supposed that only two articles will intoxicate viz Opium and Alcohol Dr Wilson informed me that Opium produced pustules on the Skin

Of its use in Different Diseases Its effects upon Vegetables prove it to be a Stimulant Of its use in particular diseases it is difficult to say any thing owing to the different Opinions of writers upon this Subject it is however much employed in Nervous Diseases

Bringle speaks highly of it in the third Stage of

Jail Fever and says it is equal to wine Cullen speaks highly of camphor in Typhus he thinks that where it does not do good it is because it is not given in quantities large enough Many speak highly of it combined with Bark &c In thow dis=
=eases Sir John Pringle declard it to be one of the greatest an=
=tiseptics he is acquainted with In Gangrene Colin of Vienna says it is preferable to every thing internally and externally applied he says it soon puts a Stop to it and causes a Sep=
=aration of the dead parts

Confluent Small Pox Rosentine says that Pomatum with camphor rubbed on the Skin prevented Marks Supre=
vent the affection of the eyes and Fauces the former is done by suspending a linen rag moistened with camphor and Spirit the latter by Gargles of the Same This practice is universal in London and we certainly find fewer Small pocked people in that Country Haller first established its use in the low State of Small pox

Cullen says he has given it with advantage in removing pain from the Joints in Rheumatism and Gout Dr Fer=
=riar emplayed it with advantage in Lumbago and Stiff joints it was combined with Vitriolic Ether

In Spasmodic Convulsive diseases and Epilepsy it has been emplayed Cullen declares he has frequently pre=
=vented paroxysms of Epilepsy by the exhibition of Cam=
=phor tho he never cured a case by it In Chorea Sti=
=ti from 4 to 18 grains three times a day performed a cure

In Mania and Melancholy its use is ancient whether with good or harm I do not know

Nymphomania A case of this occured some years ago under Dr Bond and was cured by Phlebotomy to ℥xxx and purges

Camphor has been strongly recommended in Gonorrhea by Hoffman In Chordee Bell has found it usefull externally applied dissolved in Oil and rubbed on the external parts of the Penis

Of the Utility of Camphor when combined with other Medicines — With Bergius Lafstone says they are more powerful in cancerous diseases with Opium it is of advantage and is said to lessen its narcotic effects in inducing Sleep and Dreams tho these are facts not sufficiently established With Peruvian Bark it is said to increase its effects with Mercury it moderates the action of this Medicine Cullen supposes it does this when combined with that acrid preperation Turpeth Mineral also with Calomel with Mercurial Ointment it diminishes the power it has of Salivating but I think this opinion is not well founded Home in his Treatise upon Ulcers thinks it increases the action of Mercury

It is said to lessen the acrimony of Canthorides this was first published by John Grenival an English Physician in 1698 for using Canthorides internally he was tried

by a Jury of Physicians condemned and imprisoned

Heberden relates two instances in which Camphor pro
duced Strangury in women The Urine never smells of it
It has been said that it is a powerful diuretic I have
known it perceptible in the sweat Some Physicians
wet the part where they intend to apply a blister with
Camphorated Spirit I always found a plaister of Mus-
=tard applied to the Ankles relieve Strangury after di
=uretics had failed The dose is from 1 to 10 and 20
60 or 100 grains three times a day

Camphor is one of those medicines which do not sit
well on the Stomach It may be triturated with one or
two sweet blanched Almonds sugar Gum Arabic Spir=
=it or Water It is also used in pills It is diuretic and
diaphoretic The best preperation of Camphor is ℞ Camp.
℥ij Aq: Font: ℥vij Myrrh gr. viij this forms a transpar
ent Julep

MUSK Of this I have but little experience It
is the produce of an Animal of the Quadruped kind cal=
led Muscus Moschifera It is situated in a particular
follicle near the Umbilicus It is perhaps the most odor=
=iferous Substance in Nature It is little or none dimin=
ished in weight after scenting a whole room for a long
time It is an inflammable substance of a brown color and
fatty feel has little taste and a Strong Smell ——

Chemical Analysis It contains a Resin and great port
of Soluble in Alcohol and Water it contains also
a saline matter Treated with alkaline Salts it smells of
Ammonia Cullen places it under the head of Antispas-
-modics I think it may with propiety placed under the
head of Stimulants Darwin places it under the head of
which he supposes restores the irritative motions
Of its effects on the pulse I know nothing Sir John Pringle
recommends it highly in Gout of the Stomach certain it is
that the most powerful Stimuli are proper here as Opium
Ether &c Cullen is in favor of it In Tetanus it has been
useful ℥ss every four hours is the largest dose I ever heard of
being given

In Hydrophobia Stuse here has been derived from the
Chinese In Cholica Pictonum which is a Spasmodic
disease used with opium Dr Hillary found it beneficial
Few Medicines are more adulterated than this the Strength
of its Odor is the only criterion to Judge by Used in doses
of ℈j a day one half of it is often mixed with Tallow

In Tumors Subsultus tendinum and in low nervous
fevers given in large doses it is an excellent medicine

In Mania Cullen in his first edition of the Materia
Medica says he found it superior to any other Medicine
The Polecat affords a Liquor of a peculiar and intense

Smell which is secreted in a follicle near the neck of the bladder I have long suspected that this might be used in Medicine Dr of New York has exhibited it in doses of from 10 to 90 drops in cases of Hysteria and Asthma with advantage out of the Animal its smell is not unlike Musk

Castor This is an Animal substance obtained from an odoriferous bag near the anus of this Quadruped The best comes from Russia an inferior sort from Dantzic and the worst of all from this Country It has a strong tho not disagreable smell and is of a bitter taste Its chemical Analysis is nearly similar to that of Musk Like that it is composed of Resin and Gelatinous parts and contains the same peculiar saline matter and an oil when distilled It has been either too highly recommended or too much neglected in Medicine

Cullen supposes it to be a powerful antispasmodic in Large doses from 10 to 30 grains It has long been supposed to possess nervous and antispasmodic virtues It has been given to promote perspiration and to increase the circulation also as an Antiseptic and Emmenagogue (these will be considered hereafter) The powers of the Bark is said to be enhanced by this Medicine It is given from 10 grains to ℈j if ever it does good it is in large doses Some writers suppose it possesses Narcotic powers and induces sleep it is probable it does The dose of the Tinct Castor. is from ℥j to ℥j the

Spiritous Tincture is best as in it exists the largest quantity of Resin the Aqua Castorea has a flavor but is an useless Medicine

Crocus (Saffron) This is the Stigmata or female parts of the Plant called Crocus Sativus Chemically examined it contains a peculiar substance where virtues are easily extraicted by water wine Vingar and Spirit Dr Monroe says it is an elegant and exhilirating Medicine eases pain and promotes Sleep Bergius observes that Hysteria is made worse by it Its smell is apt to produce head-ach Dr Cullen has a mean opinion of it he has used it in large doses and says it possesses no considerable virtues

We now proceed to a class of medicines called Antispasmodics (a term which has no place in my arrangement) possessing highly stimulating powers the first of these is

Asa foetida This is a fetid concrete juice the produce of a Large umbilliferous plant growing Spontaneously in Persia It has a bitter acrid pungent and Nauseous taste its odor is volatile and loses its efficacy by exposure to the air It is a gum resin the gum is largest in proportion

It is the most valuable of all the Fetid Gums Cullen explains its sudden antispasmodic virtues by supposing its odor to be so diffusive as to penetrate the Nerves Asa foetida like all the Class of Umbellatia has a Narcotic quality it also possesses a laxative one In Glysters where

the Stomach rejects it it is nearly as effectual as by the Mouth In the Spasmodic complaints of Dyspepsia and Hysteria it is excellent It has a laxative power and is frequently emptoyed as a purgative It is used in Spasmod=ic Asthma it determines to the Lungs and is a powerful expectorant and the best Gum Ammoniac not excepted

It has been recommended as an Anthelmentic and em=menagogue of this more hereafter It has been used with advantage in intermittents according to Bergius he used it combined with Cortex Peruvianus It has been used by Geoffry in the Sickness produced by Opium it dimin=ishes the Suporfic effects of the Opium

It is recommended in Angina Maligna trachealis or hins accompinied accompanied with Symptoms of malig=nity to promote expectoration It very seldom Shews the extent of its Stimulant quality when we wish this effect the volatile Tincture is preferable Often exhibit a wa=tery Solution rubbed down with Sugar and a few drops of Oil of Mint

Gum Ammoniac This is nearly allied to Afsafoetida It operates powerfully upon the Lungs

Allium Sativum This is a powerful article and likely to continue so The root or bulbous part is generallyused

It has a strong acrid pungent Smell its taste is acrid Its virtues depend upon a Volatile part which is deposited

by drying or boiling A volatile oil is obtained by distillation like the oil of the Liquisa it sinks in water When applied to the Skin it inflames and blisters it these blisters are said to heal quicker than the common ones

From its diffusibility it soons operates as a Stimulus (in 15 minutes) As a Stimulant it favors digestion when taken into the Stomach hence its use as a Condiment Its smell is disagreable and passes off by perspiration In warm climates and in Spain its smell is milder therfore more properly used as a Condiment Its Stimulus is very powerful and diffusible over the whole System inducing febrile action It acts powerfully on the pulse and produces thirst The red Onion (allium cepomum or Leek) is stronger than the white tho this last does the same It acts as a powerfull diuretic and produces heat of Urine Sydenham cured many dropsies with it alone and Dr Munroe recommends the powdered leaves with Gin The exprest Juice is powerfully diuretic Monroe used the Allium Bonum or Leek the exprest Juice two table spoonfulls 3 or 4 times a day It is peculiarly adapted to dropsies attended with a Languid circulation (cachectic kind)

It is probably useful in Scurvy When taken internally or externally applied it is perceptible in the Vapor arising from the Lungs and no doubt increases that secretion In Asthma it is the best Expectorant we know of I had a case of Consumption attended with Hydrothorax and General Dropsy where the patient could not lie down or

Sleep unless he took Garlic Bergius declares he has cured Intermittents with Garlic It has been recommended in deafness and Earach I cured myself of Tinitus Aurium which came on in 1797 by Garlic after Injections &c had failed It is likewise recommended as a Lithrontriptic I suppose its Lithrontriptic powers are owing to its action on the Membranes of the Bladder altering the Secretion which constitutes Stone

A decoction of the leards of Leek has lately been introduced into the British Hospitals in Lithiasis of the Intestines as well as Stone in the Bladder — here we finish our account of the Alliacae — next of the

Siliquasæ These are nearly allied to Garlic They are a pretty extensive set of Vegetables that agree in several of their Characters in the circumstance of their having a long pod or Siliqua as in the Mustard Horseradish turnip &c They all agree when externally applied as possessing some degree of Stimulating power They yield in distillation a large quantity of Volatile Alkali

I shall not consider these individually as Cullen has done but speak of their properties in the agregate they only differing in the degree of this power

They are very numerous we shall only speak more particularly of two of them viz Mustard and Horseradish

1st Of their internal use Mustard Seed has been recommended in Intermittents — a table spoonfull 3, 4, or 5 times

a day during Apyrexia of Vernal Intermittents Van Swieten relates a case of Quartan Fever which terminated Fatally in six days from the use of it. In Chronic Rheumatism and Palsy where no local inflammation exists it has been given with advantage it increases the Urinary Secretions If bruised it is apt to prove Emetic tho it is mostly used in this way

The horseradish is likewise used bruised and infused in wine It stimulates the Stomach and Nervous System Bergius recommends it cut in small peices a tablespoonfull 3 or 4 times a day for a Month in Asthmatic cases of Long Standing

In Dropsies owing to a languid circulation (and where there is great general debility) thro the Kidnies or to a torpid state of the absorbent vessels it may be useful In Scurvy it has been highly recommended hence the term Antiscorbutic or Tetradynomous plants Its taste and odor reside in the flesh of Sheep who have eaten of it

It is useful in the form of a Sinapism with vinegar and Rye Meal it acts almost instaneously Dr —— recommends these Sinapisms in Convulsions arising from dentition— And thos during the Eruptive Stage of the Small Pox it is a practice also much used in Gout in the Stomach I saw a case of wandering Gout where it produced Vertigo I think it might be prescribed with advantage in preventing intermitting fevers where they occur from habit it may be a powerful means of preventing them ——

Conifera (or cone bearing plants) Of these there are many dif=
=ferent Species they all appear to poſsefs the same properties a=
=ly in different degrees The Produce of the tree is ridicu=
=lously called Venice Turpentine for it is not a common tree
there In its entire state it is an acrid Substance it in=
=flames the Skin Internally it is exhibitied with Sugar honey
or the white of an Egg or in pills It is apt to produce a heat
in the Stomach and Nausea It is an universal Stimu=
=lant It is more or leſs laxative as a glyster with the white
of an Egg it proves an excellent laxative in Cholic and ob=
=stinate costiveneſs

It Stimulates the blood veſsels and gives an agreable odour
to the Urine similar to that of violets it is therfore eaten to
correct the disagreable fetor of the Urine arising from eating
asparagus It is highly recommended in Gleet I have used
it with advantage it sometimes inflames the Urethra and
causes a Suppreſsion of Urine 15 or 20 drops of the Balsam Co=
=paiba 3 or 4 times a day is a dose

Oil of Turpentine This is a very unsafe medicine it
produced Strangury and Death in two cases in which it
was exhibited ℞ Ol: Terib: ℥ij Honey ℥j this is the formula
in which Dr Cullen used this medicine A disease nearly
allied to Gleet is Fluor Albus Cullen. Seldom found it use
ful here this is sometimes attended with Fever which must
be attended to in administering it Its virtues depend on its
essential oil That is an Stimulant is proved by its present

ing the recurrence of an Intermittent when rubbed on the Spine In haemorrhagy of the Alimentary Canal it has been of advantage

Garlic it was said cured deafness Burgundy pitch has been found a cure in some cases for this purpose these substances are to be introduced into the Meatus Auditorius they act as Local Stimulants An empyric in Edinburgh used it with Success

Pisc Liquida (Tar) This is a half burnt balsam obtained from the Fir or Resinous wood it differs from the turpentine in being empyreumatic and half decomposed and in having an empyreumatic taste It has been supposed to be analogous to the Turpentines but it is not so powerful— It is thought to be a good Pectoral made up into pills with Elecampane A Leprous case in which I used Salivation Sassafras a pill and a low diet &c without success was afterwards cured by Dr John Hehnlie a German Empyric by daubing the parts over with Tar

The Gravy obtained from a Leg of Mutton roasted and basted with Tar is used to anoint the body in Lepra Dr Cullen says he saw one case of Lepra successfully treated by it Tar water acts as a diuretic and sometimes as a Laxative It has been recommended in Leprous Cases and according to Cullen in Dyspepsia

Balsam Copaiba of this I have but little to say Its powers are similar to those of Turpentine It is the pro-

duce of Copaifera Officinalis It has been recommended in Ulcers of the Lungs and in Gleets it is particularly recommended and is a very important article perhaps it does not differ from Turpentine in this respect it sits better than it on the Stomach dose from 20 to 30 drops twice a day in large doses it is apt to prove Laxative

Use the following Injection in old and Virulent Gonorrhoea R Cal ppt. Griv Bals: Copa: gtt 40 vel 50 Gum Arab: ℥ij Aq: Font: ℥viij — Dr Cullen thinks it gives relief in haemorhoidal affections I think it only acts as a Laxative

Balsam of Peru (and of Tolu) These are so nearly allied that little need be said of them seperate The Tolu is less Stimulating

Gum Benzoin This is a peculiar substance Its Medical History is not complete

Safsafras I would recommend an investigation of this Tree It enlivens the Spirits to a considerable degree but in two instances it produced a most depressing sadness the patients were of a phlethoric full habit In the Venereal disease it is no longer thought of in diet drinks it might be useful The oil is more diuretic than most of the Aromatic oils

Liquid Amber This is a native vegetable called the Sweet Gum It is a Native of various parts of the United States and as far South as Mexico Near Philadelphia it is weak it is intimately allied to the Balsams and Safsafras. It is but little employed Dr I Lee of North Carolina used it with ad-

vantage in Diarrhoea - it is sometimes astringent I suppose it is the Styrax Liquida of Cullen which he says is of ser= =vice in paralitic cases mixed with Oleaginous Substances

Gum Guiacum Upon this Subject see Dr Dawsons pub= =lication on Gout and Rheumatism It is the produce of a Tree which grows in the West Indies and South America The Guiacum officinalis is a Gum Resin and was long supposed to be a remedy for the Venereal Disease It still continues to be used in this disease Bell gives an interes= =ting account of it in Ulcers and venereal blotches it is upon a footing with the Nitric Acid

It was early used by Drs Friend Mead &c in Gout Dr Milligan of Martinico extols it in this disease his prescrip= =tion is as follows R Gum Guiac: Zjij Rum Hij for a time= =time dose a table Spoonfull every morning fasting Dr Daw= =son recommends as much again as is commonly prescribed Berger recommends a watery infusion R Gum: Guiac: Zfs Gum: Arab: Zij Water Zg Sugar: Zfs dose Zfs or two table Spoonfulls a day a curious change of colour takes place in this mixture on Standing from the color of Scotch Snuff it turns to a beautiful green Cullen prefers equal parts of the Gum and Sugar powdered and made up with the yellow of an Egg in form of an Emulsion taken at night so as to produce a Stool in the Morning I used it with advantage in Colica Pictonum Dr Fothergill prescribed it where the Limbs were inpaired by with Lead It is a true Gumlesin

Myrrh This is a Gum Resin it is a Native of Arabia and Ethiopia the produce of a Species of the Sensitive plant

It operates as a Stimulant on the Stomach promoting appe=
=tite and digestion in doses of ℥ss to ℈ij It is apt to produce a disagreable heat at the Stomach &c It has been used as an expectorant in Phthisis Pulmonalis Dr Senter speaks highly of Sulphate of Iron (Green vitriol) and Myrrh in Hectic In Ulcers it is recommended for its Balsamic and Antisep=
tic virtues Home speaks of its efficacy in cleansing foul Ulcers Cullen recommends it haemorrhagy of the Uterus aris=
=ing from flaccidity of the Parts

Its virtues are extracted by Spirit and by water the a=
=queous infusion is least acrid

Daphne Mezereon This is a Native of Europe but it thrives as well here I have never spoken of it before in my Lectures every part of the plant possesses its virtues in different degrees even the leaves have vomited and purged It indu=
=ces violent inflammation of the Stomach in form of an elec=
=tuary it has been given as a purge The active properties do not in any degree reside in the woody part therefore the Bark is best

Mr Bell speaks favorably of Mezereon in Spreading Ulcers following Buboes when the System was loaded with Mercu=
=ry in this condition Opium Hemlock Bark Wine &c make them put on a better aspect here Mezereon is an invaluable Medicine It has been much recommended in Hernia Humoralis

Mr Hunter was much attached to it The Bark is acrid taken into the mouth it excites heat and inflames the fau=ces Dr Withering used it with Success in a paralytic af=fection of the Muscles of Deglutition The bark is so acrid as to blister when applied to the Skin

Gnidium Daphne Another Species it is celebrated as a blister in France and other Countries it is put into thine vinegar to soak and then laid on the Skin It is u=sed in Opthalmias as an issue to the Arm near the inser=tion of the Deltoid Muscle I suppose the Ranunculus Bu=tbous or butter cup / a yellow flower / covering our Meadows in May and June with Blossoms will answer as well the root must be fresh and cut in Slices it acts in 15 Minutes the Sore must be dressed with a poultice instead of Oint=ment The dried root is inert but it may be preserved in silver Sand and then is full as powerful as when fresh

Valerian This should perhaps have come after Musk or near it I do not know rightly how to place it. There is no doubt but what it is a considerable Stimulus Cul=len places it as an Antispasmodic The Root only is used It has a Strong peculiar Smell It acts as a diaphoretic and diuretic it sometimes purges and vomits It debili=tates the Stomach in large doses Jessot remarks that it produces tightness of the Breast

Marchland cured two cases of Epilepsy by it but two

large worms were discharged In Chorea St Viti it has later=
=ly done much good many cases of Chorea are on record pro=
=duced solely by the Imitation of worms Dr Kordyce recom=
=mends it in Hemicrania in doses of from 3j to 3ij twice
a day. this head ach when it returns periodically is best cured or prevented
by combining the Cortex Peruvianus Valerian and a little
volatile Alkaline Salt

Large doses of Valerian have relieved Gutta Serena when
Mercury &c have failed according to the experience of Dr
Hahn I think Valerian is nearly allied to the Virginia
Snake Root It is antiseptic as well as Anthelmintic

Thea Bohea & Viridis (Tea) It is a native of Chi=
=na and Japan The flower of this Shrub is described as hav=
=ing six petals and sometimes from 5 to 9 It is of the class=
Polyandria (13th) It is therefore Natural to expect active
or pernicious properties The green Imperial Tea is confi=
=ned to China and never brought here or into Europe I
once tasted it in Holland

It is now well ascertained that there is but one Specis
of Tea all the varieties are owing to a difference in the
color Size and manner of preparing it They are all obtained
from a Small evergreen Shrub of the Size of a Man It
grows on the declivity of Hills and on elevated places
The Chinese have a way of obtaining it by throwing Stones
at the Monkies who through back the boughs of this Tree

It is often found on vallies and on Banks They must be 3 years old before the Leaves are plucked for use at 7 years old they are cut down as they do not grow any more for an account of it see Kempfer Tea loses some of its virtue by exposure to the Air Tea is used here by making an infusion of it in water The Japanese grind it into powder here then if it had deleterious qualities it ought to shew them The Chinese never use Sugar or Cream

The noxious power is destroyed by roasting Mr Kempfer declares he never saw a person in Japan troubled with the Stone or Gout The taste is austere with an agreable bitter the Smell is externally fragrant An infusion strikes a blue colour with the Sulphate of Iron a test of its astringency Vinegar gives it a black colour

It is considerably antiseptic it therfore deserves a place after Gentian Wormwood and Rue A Merchant in London was seized with Vertigo after examining and studying 100 Chests of Tea Cullen in the old Edition of his Materia Medica says the pernicious effects of Tea are very evident I knew it to produce Ebriety and a partial loss of Memory in a Gouty person In some it produces anxiety, tremors, and Sadness It is supposed to injure the Teeth Dr Kuhn endeavored to find a substitute for Tea in the New Jersey Tea as it is called he found the most likely others as the, briar Rose Bramble Strawberry privet Balm Marjoram birch &c have been tried Dr Rittenhouse

thought the New shoots of hickory the best substitute
Chewing of Tea is an excellent remedy for Cardialga

Evacuantia

Evacuants) We now proceed to the next division the great=
er part of which are Stimulants They produce their effects
as Stimulants

Errhines These are Medicines which produce a dis=
=charge of Fluids or Mucus from the Nose from their ac=
tion on the Schneiderian Membrane Bonain supposes it
arises from the disturbed Lymphatics of the Nose or inter=
tion of their Motion - but this is not established These
Evacuations are sometimes attended by Sneezing They act
topically and hence are found useful in the Tooth Ach
and Rheumatism of the Face The Laurel in powder acts
as an Errhine Tournefort selects the same of Rhododendron
Diseases in which they have been recommended. In
Hydrocephalic Fever as McBride long ago called it
Percival found them of advantage Mr Ware says they
effected a cure in every case of Gutta Serena excepting where
it depended on Tumors of the Brain In two cases of Gut=
=ta Serena cured by Errhines haemorrhagy came on his
recipe is ten grains of Turpeth Mineral with one dram
of Stemutatory powder In Deafness it has been used with
advantage in such cases as Dr Sims supposes to arise from in=

flammation of the Eustachian Tube Blisters and venesectia are often of advantage

Beta Vulgaris (or Common Beet) It is the Juice of this which is employed The powder of the Root is also an Errhine

Asarabacca This will be spoken of under the head of Emetic and Purgatives at present only as an Errhine. It is the most useful and convenient of this Class a few grains answer the purpose and produce a large watery discharge It is the basis of the Pulvis Sternutatorius of the Edinburgh Dispensatory We have a wild ginger in this country which contains all the properties of the Asarabacca or Asarum Europeanum three grains are sufficient for a Snuff (Asarum Canadense)

Tobacco With this plant you are all well acquainted The repetition of it renders it useless as an Errhine its bad effects when laid aside should always be kept in view It is dangerous in Gouty habits to the Short necked and to those subject to Giddiness and likewise to the Plethoric Dr Hope used ~~tho~~ to mention the case of the Duke of Burgoyne who was seized three times with Apoplexy and at last died of it from laying aside the use of Snuff In whatever form it is used it is acted it first shews its narcotic qualities Dr Lony in his dissertation on Melancholia says that Maniacs are very fond of it tho never accustomed to its use before their illness

The most acrid Errhine is the Euphorbia Officinarium this is liable to induce inflammation and deserves caution in the use of it

The White Hellebore is used in ½ grain with one dram of the powder of Liquorice — We now proceed to the Class of Salivating Medicines

Sialagogues

These are such medicines as increase the discharge of the fluids of the salivary Glands and include Mercury which is the most important of the Materia Medica

They are external or internal. The external are certain acrid Stimulants applied to the Mouth to promote the excretion they are similar in their action to Errhines Here are a great number of these substances I shall only mention such as are employed

Pellitory of Spain The powder of this root is also an Errhine

Masterwort The root chewed excites this discharge Cullen thinks there is no better sialagogue than fresh Horseradish chewed

Seneka Snake Root if chewed excites heat and a copious flow of Saliva I know no medicine more valuable as an external Sialagogue I think it adapted to Odontalgia Rheumatica

Xanthoxillum Fraxinella This is an indigenous

plant known in this country by the Name of Toothach Root It is an excellent external Sialagogue

Sialagogues produce their effects by their Stimulating powers

Mercury We shall speak of this Medicine as follows First of its use in diseases next of its Modus operandi and then of the different preparations

In Fevers of this I shall say but little as you all know in what manner it has been used The practice of Salivating in Fevers is one of the most important of Medical discoveries though it is often ineffectually tried owing to peculiarities of Constitution Few children under 2 years old can be salivated this however is not true where the System is plethoric Venesection should be premised I think Mr Hunter was not attentive enough to low diet &c in the use of Mercury and hence the reason we succeed better here than in London in curing Syphilis

Dysentery Here Dr Clarke found Mercury to relieve every Symptom Dr Bond of this City was one of the first who prescribed Mercury in the cure of this disease when it has malignant symptoms it is happily adapted where Dysentery is complicated with Scurvy it is improper In this disease whenever the Mercury touched the Mouth the Tenesmus and all the other bad Symp

toms vanished In the beginning 4 5 or 6 grains ought to be given with some opium Clarke used Saline purges besides the Calomel Where Calomel proves too laxative two grains of Quicksilver extinguished by means of Honey may be instituted in its place but as there are many cases of Dysentery which are exceedingly mild here the mercurial plan should yield to mild purgatives as Castor Oil &c I have seen Mercury corrupt the Jaws and produce Mortification and death and in some cases Haemorrhagy which terminated in Death Four hundred of the Soldiers near Belgrade died in Scurvy with a Salivation Mr Bode says it requires more mercury to Salivate in the East and West Indies than in Cold Climates

Cynanche Maligna Mercury was first employed by Dr Douglass 90 years ago In 1771 by Dr Bard he recommended Salivation Gargles of Corrosive Sublimate have been recommended Dr Rush recommends anointing the Throat with Mercurial ointment

Cynanche Trachealis Here Dr Cullen thinks Mercury a valuable Remedy This disease is very properly divided into Idiopathic and Symptomatic the former admits of a speedy cure but the Latter is most unmanageble and seldom cured I have long been of opinion that Cynanche Trachealis depends upon the same

Contagious as Yellow Fever it runs its course in two or five days. I had a patient whose it terminated in death in twelve hours

Pneumonia It is seldom employed in that Pneumony which occurs in Marshy grounds It is highly probable it may be of use Dr Hamilton of Lyn Regis the most marshy country of England trusts to it in this disease

Hepatitis This arises from the same causes which give rise to ~~Intermittents~~ Remittents and yellow fever it often arises from intermittents I have remarked that Hepatitis is more common in Spring Gorden than in any other part near the City The Remedies are Copious venesection Clisters purgas and Mercury

Acute Rheumatism Here very little of it is necessary excepting as a purge but when it runs to a Chronic form and Stimulates to a Paralysis it is the only Medicine that can be used with advantage It is little used in Gout but from its affinity to Rheumatism it is likely to be of advantage

Hydrocephalus Internus (or dropsy of the ventricles of the Brain) This is probably owing to an irruption of some vessels often falls Hooping &c but I think it generally arises independent of such causes In the commencement it is a febrile disease of an Intermitting Type attended by Fever Head

=ach Lassitude avoiding Light Stupor squinting double vision
&c Costiveness is sometimes considerable sometimes a vomiting
and discharge of Worms hence Musgrave calls it a worm
=fever and treated it with Calomel Nausea often occurs
in the Chronic Sanguineous apoplexy in the advanced
Stage blindness often occurs involuntary Stools and the Pa
tient dies in convulsions It often occurs in Scrophula from
Tumors in the Brain It mostly attacks Children until pu
=berty I never found Mercury alone sufficient to cure it Ven=
=section Purges and Blisters were also necessary - the good=
=fects of Mercury are independent of a Salivation The first
effects of this Medicine are a running at the Nose and some=
=times a profuse perspiration of the Head which is favora=
ble and should be favored by flannell &c Dr Monroe men=
tions 22 cases all of which died in 4 of whom the Gums
were swelled and Red and a profuse Salivation kept
up for seven weeks - after Death 8 Oz of water was found
in the Brain A Salivation is not always sufficient to
cure it and it is not so important a part as venesection
and Blisters It is necessary to guard against Laxity and
also Costiveness An acceleration of Growth has been obser=
ved after cure by Mercury. A young Lady of 9 or 10 years
of age increased in Stature 2 Inches in 4 Months according
to Percival It is very curious to observe that the first effect
of Mercury on Children is a running at the Nose this shews
the strong connection between Mercury and the Exhines —

Dropsy In this Disease Mr Duvenney used Mercury 100 years ago (vide memoirs of the French Academy) Calomel is commonly used in Conjunction with diuretics with advantage (Squills) According to Dr Fenian the Urine is increased in quantity during the Ptyalism and stops as soon as it goes off

In Dropsies arising from Remittents and Intermittents mercury is more useful than in Febrile Dropsies It is much better adapted to Anasarca than Ascites here we see the similarity of Mercury to Diuretics

Epilepsy It is much used in this disease but few if any cures have been performed by it tho it sometimes suspends and moderates the fits this is doing a great deal in so deplorable a disease

Tetanus This may with great propriety be divided into two varieties the Idiopathic and Symptomatic the former often admits of a cure - the latter is generally fatal from abrasion of the Nerves Friction wine Opium and Bark are the Medicines generally used I Clarke recommends Mercurial Frictions I never succeeded when it was Symptomatic I therfore recommend Mercury to prevent it where it is expected

Jaundice Dr D Monroe and I Clarke found it succeed in this disease —

Lepra Here I expect it is useful Dr Hillary says it abates it for a little while but that it returns with redoubled violence He last remedy he found was the preperation of Antimony —

Yaws (or Framboesia of nosological writers) Mercury has been given with advantage in this disease by some and not by others Hillary was fond of it The sores here are said to resemble a Mul=berry or Raspberry I cured a case of it effectually in my passage from Europe to America by Mercury There is a disease in Canada called the Sibbens of Scotland it yields to the Mercurial Plan

Scrophula In many cases it is beneficial. Corrosive Sub=limate is generally used with the Bark

Cancer Here it has been used with advantage. Corro=sive Sublimate is generally used

Bronchocele (or Goitre) This is supposed to be nearly allied to Scrophula one case which occurred in Canada I was informed yielded to Mercury

Deafness A remarkable case of this kind is related by a Mr Gordon it was in a man who plunged over head and Ears into the Sea he never had the least indisposition of his Ears before this but was now perfectly deaf he complained of a hissing noise in his Ears and looked (says Mr Gordon) as if great=ly frightened after trying every other remedy recourse was had to Mercury and he obtained relief the very day his Salivation came on and was perfectly cured Mercury has been used by Mr Ware in form of a Snuff in Gutta Serena Turpeth Mineral is used 5 grains with 35 grains of the Pulvis Sternutatories of the Edinburgh Dispensatory Dr Rush prescribes 1/6 of a grain of Red Precipitate and Mercurial Socks to salivate a woman (Maine)

Colica Pictonum Dr Clutterbuck recommends a Salivation in this Disease

Plica Polonica A Salivation has lately been found as complete a Specific in this Disease as it is in Syphilis

On the Operation of Mercury In its natural State it is inert There is no doubt but it is taken into the Circulation It has not however been found in its metallic form in any of the fluids Cullen supposes it acts by Stimulating every fibre in the Body and particularly those of the Secretory vessels I am of opinion however that does not change the fluids neither is there any proof of its inducing a greater flaccidity of them A much more possible opinion however is that Mercury acts as an Antidote this is supported by Mr Bell of Edinburgh if the facts related by Cullen be true they go far in support of it / Mr L that the fumes of a venereal Chancre mixed with Reaches Gummy Solution of Mercury will not infect / but these Experiments should be repeated as it may perhaps do the same with any other solution The facts related concerning Camphor seem to add weight to this Opinion / that it prevents the Eruption of small pox /

It would seem probable also that if Mercury cured Syphilis only without curing other diseases which it does not as it cures Agues Sibbins Plica Polonica &c which Basons differ totally from that of the venereal Disease : The opinion of Mr John Hunter is that Mercury acts by counteracting the venereal action by introducing an action of a different

kind Canthariades Mercury &c all have different actions Nat=
=ny facts corrs pond with this opinion The exquisiteness of
the Nerves in distinguishing different actions is obvious
Hunter supposes Mercury imitates the part before imitated
and in consequence the excitement of the imitated part
is changed and thus overcomes it thus Red Precipitate
is better in the Cure of Cancers that Calomel Mercury
is not the only remedy that Cures Venereal Sores Vesta=
=gris Ointment Blue Vitrol &c act in the same way even
the passions of the Mind have produced great Changes in an
Amputated Limb Stump Dr Hoffman relates an instance of the
bite of an enraged Man killing another from the Malignan
cy of the Saliva
The Harmattan winds prevented the communication of the
Small Pox I knew a striking instance of the impossibil
ity of two actions existing at the same time Two Children
were twice Inoculated for the Small Pox they did not
take it because they labored under the Itch - this was
cured when the same matter produced the Small Pox —
Dr Cullen supposes Mercury acts in curing the Venereal Dis=
=ease by its power of evacuating the Saliva A second opin=
=ion was that it acted as an Antidote - this I do not believe
Mr Bell lays great Stress /uncandidly/ upon the experiments
mentioned by Dr Cullen A third opinion generally held
on the Continent of Europe is that it creates a new action
(from Mr J Hunter). Some suppose it never enters the Circula
tion and still acts as an Antidote but how it can do it

without entering the Circulation I cannot conceive

Mr Adams of London a late Judicious writer observes that Poisons are such Substances that Change the action of a part or the whole Constitution from a healthy to a diseased State and are either Animal Vegetable or Mineral they are Original or Morbid Poisons The first are Secretions as the bite of the Viper &c The latter (according to J Hunter) are diseased Secretions Morbid Poisons are such as convey diseased action from one Animal to another by Vapor (as the Small Pox) Contact or by a Wound The first kind are Contagious from Fevers the Second by Contact the bites of Rabid Animals Small Pox is the second First for a Morbid Poison to produce its Local effects the Subject must have a disposition to receive it the Susceptibility to take it depends on the Constitution at the time it is made All men we know are not Susceptible to Poisons many are at one time and not at another

The Small Pox of horned Cattle lately so Celebrated has gone to the Ground it is found to a different Imitation from that of the Small Pox

Dimpfer endeavored to communicate the Venereal Poison and that of the Small Pox to Monkies but without effect In Some it remains Local— A nurse in that occupation 23 years although three times inoculated escaped the disease but at 62 took it and had several hundred Pocks — this Shews the Susceptibility of the System to Poisons at one time and not at another There is a period of 10 days between the time of Reception and the first Symp-

toms of small pox in the Casual kind The Miasmata of an Intermittent is often taken from one part to another

I have decided proofs of the Yellow Fever not acting until the 13th day Jackson mentions the 17th After the disposition is given the action may be suspended by another disease The Small Pox must certainly be suspended by the Measles when they both occur The Mercury should be suspended as soon as we perceive the New Action

Secondary Ulcers from Morbid Poisons yield sooner than the primary ones Disagreable sores are frequently produced by Mercury I knew a disagreable one produced on the Arm in Malignant Sore Throat / Phagedenic Ulcer / I used Bark and Wine without effect these ulcers are accurately described by Mr Adams two other instances occurred but not fatally

The influence of Mercury is very extensive over every part of the Human Body The Fever induced by it is a Specific Fever this is obvious from its uniformity It often supercedes fevers that are kept up by habit habitual Head-ach &c A case of deafness (in the 5th Vol Medi Comi) was cured the very day a Sore mouth came on This is one of the most important articles in the Materia Medica If what has been said is true it demands caution in the Exhibition of it

It often paves the way for the exhibition of Bark.

Of the Preperations of Mercury Quicksilver is also

lutely an inert Substance but when it has been exhibited in large quantities and for a length of time it has induced a Salivation

To render it active and of use it must be chemically changed Cullen divides it into four heads viz — 1st In the Form of Vapour 2nd By Calcination 3rd By Triture tion 4th with Acids

Fourcroy asserts that when Mercury is boiled in water it gives out some of its properties I am convinced of the truth of this assertion By agitating it when distilled in a Phial it becomes of a pale colour By agitating it for an hour it becomes nearly as dark as ink this water killed leaches and earth worms in 15 Minutes it cut their bodies the Mercury was revived in them

By Vapor This was first recommended by Dr Turner it is still used in the British Hospitals Salivation is soonest excited in this way Mr Hill relates that 3ss of Cinnabar excited it in 3 hours The Fumes differ from the Cinnabar in Substance in the latter the Sulphur preserves its action but in fumes the Sulphur attracts Oxygen and forms Sulphuric Acid

Mercury when calcined only is in a condition to be acted on by the Stomach

Some preperations by triture are much used these are the mildest but the most uncertain Plenks Gummy Solution is of this kind

The Saline Preperations differ according to the Nature of the Acid those with the vegetable acids are mildest those with the Muriatic most active Corrosive Sublimate is the least apt to Salivate and is the best preperation for bloth=
=es on the Skin we should begin with doses of 1/6 of a grain Calomel in small doses with Opium is least apt to gripe. The Red Precipitate is little used in internally 1/8th of a grain is a dose It Salivates soonest

We now proceed to other articles of the Class Sialagogue

Rust of Copper This was formerly spoken of under the head of Lead Professor Gmelin relates two cases were it Salivated

Lead Professor Thunberg of Upsal relates an accident that happened during a voyage to the Cape of Good Hope Several of the Crew were completely salivated by eating Pan= cakes which were made up with White Lead Pancakes instead of flour The Captain then Subject to a Cough was attacked with Colic which suspended the Cough the Gums were Swelled as were the Glands the Saliva tough the Tongue brown= =ish the Mouth Swelled with fetor of the Breath very dif= =ferent from that of Mercury the Urine Red the white of the Eye inflamed tears flowed face Swelled and impossible to Chew Earach and Red Spots on the Fingers

Were I to adopt the term Torpentia Lead would very pro= perly come under that head but I make no place for it Colica Pictonum is a disease caused by the vapors of Lead The cure in the first Stage consists in purges Castor Oil

and Chrystals of Tartar Cullen cred very much when he said it occurred without Fever Opium is a very proper Remedy with Purges the warm bath is also used

Saccharum Saturni is the only preperation of Lead used in Fever It has reduced the pulse from 108 to 70 In haemorrha-gies 1 grain with opium is not so apt to produce Colic as with-out it I have no doubt but that it may be exhibited with much less danger than is supposed I gave it six cases of alarming haemorrhagy one of which proved fatal To a Child in Dysentery with Melena I exhibited one grain everyhour two grains to an adult five grains have been given It is particularly proper in haemorrhagies the Uterus and Intestines Dr Heberden says that as an Astringent it does no good un-less it comes in contact with the part from whence issues the haemorrhage

Of the Modus Operandi (of Lead) I have no doubt but that in Some cases it acts by reducing the frequency and Some-times the Tension of the pulse in the way Venesection and Digitalis do They have done good in Tumor Albus here they must have had some other property than that of low-ering the pulse Dr Mickle recommends it in old Gonor-heas internally It is used from 8 grains to ℈j in ℥viij of water Goulards Extract 25 drops to ℥viij

Dr Hunter recommends it in Fistulaes and with it the bank of a hot house It has been used in Tetanus St Viti and Epilepsy the dose should be regulated according to the Age Nature disease and Constitution of the Patient

It Should be used with Caution for an adult 2 grains are not a large dose They made into Pills Emulsions &c with Opium its effects are prevented

It has been thought that Gout is owing to the Lead in Wine it is unknown in Turkey but they are continually dying with Apoplexy

Antimony Some preperations of this have been known to Salivate The late Dr James informed Sir J Baker that James's powder in Several instances produced a discharge of Saliva neither Sore teeth or offensive breath were observed I have met with some facts where Arsenic have done the Same but I cannot recollect them the facts however may be relied on

We might here mention other Sialagogues as Camphor Hemlock Polygala Seneca or Seneka Snake Root likewise the Squills upon the whole I think the Number of Salivating Medicines are more considerable than we at first sight suppose

On Salivating Medicines Some facts which I have collected tend to Show that Some Animal Matters are endued with a Salivating property G Foster in his voyage round the world on board the Resolution Speaks of a fish called Sparus Elethrinus or Red Sea bream which was taken and fed upon by the Crew all of those who eat it were Seized with Symptoms of Poison the Salivary glands were Swelled and Inflamed and a Copious discharge followed with an acute pain and Spasm in the Bowels the food of this fish is the

Medusa or Sea blubber which accounts for it
In the last volume of Duncans Commentaries he relates the Salivating powers of some Lizards in South America producing a profuse flow of Saliva

Diuretics

This Class properly follows the Salivating Medicines and particularly as several of the Diuretics possess the Salivating property to a considerable degree Cullen placed them after because the Kidnies are nearest the Stomach

The first of them is the Polygala Seneca or Snake Root or Rattle Snake Root In New York it is called Mountain Flax Not because the Polygala is the most powerful but because it is so decidedly diuretic and approaches the nearest to mercury of any do we speak of it first- As a Native medicinal Vegetable of our own country more deserves more attention It was first called Seneca from the Indians of that Name

Its Sensible Qualities When first taken into the mouth it has a farinaceous taste- this is of short continuance the impression afterwards becomes somewhat acrid and Stimulating pungent to the fauces with a tickling Cough and Sense of Constriction it induces a copious flow of Saliva tho in the Stomach for some days

General Effects It is frequently diuretic diaphoretic and Cathartic in large doses it promotes Expectoration

And may be made a sure Emetic

Effects on the Pulse (See Winstons dissertation) It here increa=
=sed the pulse 5 or 6 strokes also produced a pricking sensation
on the Skin and a natural perspiration It has induced a
genuine Salivation according to Comander a pupil of Linnaeus
In a Mrs Saylor with a cough and Hydrothorax compli=
cated with ~~Hydrothorax~~ Anasarca 11 days after taking
the Root a sorness of the mouth came on and a Salivation
for 3 weeks so profuse that a handkerchief was constantly
applied to her mouth it discontinued when left off and
vice versa besides a swelling of the Gums there was an unu=
sual smell of the mouth different from that of Mercury
something like that of musty bread In another case of fever
the smell was decided

Dr Tennant gave 35 grains at the dose The decoction is
made by Zij to a quart of water boiled to a pint three spoo=
=fulls every Six hours It universally proves Diuretic some=
times Cathartic and sometimes Emetic Tennant gave it
in the disease from the bite of the Crotus Rattle Snake which
he says Resembles a violent Pneumony It would require much
skill to distinguish it from a Peripneumonia Notha It
has lately been much recommended in Croup In three instan=
ces I used it and trusted to it entirely I have no doubt
of its powers tho it will be overrated as all Medicines have
been without exception Dr Tennant recommends it in
Dropsy Rheumatism and Gout Dr Millman gave it

in 13 cases of Ascites six of those were cured this is a favorable testimony of the virtues of this Medicine The powder is not unpleasant to the Stomach Mr S Preston related a cure of Tetanus from the bite of a Rattle Snake where Zij in a Gallon of water was used in three days

Digitalis Purpurea Called Digitalis from the Blossom resembling the Finger of a Glove I think the term Purpurea is not happily applied because Linnaeus lays it down as a maxim that the Specific name of a plant Should never arise from the colour of its flowers It is a very important article It comes from many parts of Europe and grows there like the Mullen here It is not a Native of this Country but bids fair to become so as much as the Mullen Every part of the plant has been used in Medicine writers however agree to employ the Leaves It has a bitter Taste and is extremely Nauseous

Sensible Effects Zj given in large doses it produces Sickness vomiting purging Giddiness double vision appearance Yellow and Green large discharges of Urine Sometimes an inability to retain it It acts most remarkably on the pulse it reduced it to 40 Strokes in a minute and even to 358 in one instance down to 24 according to Withering It Sometimes produces Convulsions Syncope and death I am doubtful whether it does not produce a discharge of Saliva

In smaller doses it acts in a smaller degree the Sickness does not come on immediately after taking it but some-

times some 2 days after it ceases and returns again but these symptoms are not necessary to be produced they are the effect of inexperience

In a Case of Hydrothorax in Mrs A a Syncope of two hours continuance came on which had nearly destroyed her but it cured her entirely during the Syncope she discharged a large Quantity of Urine Withering recommends a continuance of the Medicine untill it acts on the ~~Head~~ Kidnies Stomach bowels and pulse and then stop the patient should at the same time drink freely which is the case with every diuretic

In persons of tense fibre chorded Abdomen and pulse little is to be expected but when the pulse is feble intermitting and full pale Skin fluctuating and pitting we may expect diuretic effects to follow The Squill is the best preperation to it they often lower the pulse as much as a large venesection would do where there is a tendency to palsy it is no objection neither is the Stone Dr Withering says it does not universally act as a diuretic it often fails often all others have failed where it does fail there is little chance of a cure - this however is not true Squills have often cured where it has failed It may be employed in every species of Dropsy except the encysted kind In Hydrothorax it is peculiarly adapted and in dropsies after puerperal fever It has never done much good in Abdominal Dropsies excepting in young people and those of a sound Constitution Its power upon the heart and Arteries is greater than that of any Medicine we know of I have never read

of Lead reducing it lower than 30 Strokes whereas the Digi=
=talis has reduced from 108 to 80 and even down to 42 43
in one instance according to Withering down to 35 A plant
growing in the neighborhood of this City Rhododendron Max=
imum or Mountain Laurel has reduced the pulse to 60
given in decoction which effect is as decisive as that of
Digitalis

The Digitalis sometimes purges here it seldom does good
Hippocrates long ago observed that a diarhoea in Dropsies
was fatal it always stops the diuretic effects of Digital=
=is It is best suited to such cases as affect drunkards
and those beyond the Meridian of Life who have habitu=
ated themselves to Spirits according to Darwin when
the dose has been too large Withering recommends cordi=
=ials &c but aromatics and brandy are longer retained on the
stomach Blisters are recommended according to Beddoes
large doses of Opium are most effectual

Digitalis is much used in this City and has obtained
a respectable Character Dr Shuhn has never given it
with advantage in Ascites It is sometimes given in
pills and powders but the best way is infusion decoction
or saturated Tincture which is preferable Darwins
Recipe is ℞ Fol: Digit: ℥ij Aect: Spir: ℥iv Aqu: Font: ℥iv
to be given until sickness at the stomach is induced it
was in this way Dr Drake first gave it in Phthisis Pulmon=
=alis In Mania it has cured it did good in two in
stances under my care and in another harm in the Young

and Rhthoric it may do good perhaps keeping up a constant Nausea would do as well

In active haemorhagy it promises to be of service Dr Drake who has made some valuable communications on Digitalis uses the saturated Tincture 15 drops twice a day gradually increasing the dose he has made an obser vation which I think of advantage and importance which is that it is not necessary to produce Nausea to bring about its good effects We have before spoke of the Satu= rated Tincture of Digitalis in Phthisis Pulmonalis it is made by adding of the powdered leaves of Digitalis Zj to Zj Rectified Spirit of Wine and Zj of water this is to be exposed to heat and strained 15 drops is a dose it might do good in Pneumonia

How does Digitalis act — This is difficult to answer — Does it act by a Specific power on the Kidnies according to Cullen or by its general power or operation on the System To me both ways appear likely I know no instance of the first effects of digitalis in increasing the frequency of the pulse The question of Sedatives and Stimulants hangs upon Digitalis At Gortingen a case is related in which a large dose of it produced considerable Dysury — the Pa= tient died with Strangury and upon dissection the Kid= =nies and whole bladder were found inflamed

Tobacco Of this I have but little to say it has ex= cited the attention of Physicians lately Fowlers Solution

is made by macerating ℥j in ℔j of water with ℥ij of rectified Spirit of wine dose from 15 to 200 drops twice a day which must be regulated according to age sex habit and former habits It has been given in five cases of Dysury three of which were cured I never used it

Lactuca (Lettice) This has been extolled is possessing a specific anodyne power An opium has been extracted from the common Garden Lettuce by Dr Cox (see 4th vol American Philos: Transa:) The Lactuca virosa has been recommended by Dr Collin of Vienna as a Diuretic in Dropsy it acts as a diuretic and Laxative dose 2 grains 4 times a day to ℥j he says it is a mild remedy and is not unfavorable to the Stomach Dovers powder has cured dropsy its operation is entirely diaphoretic in curing this disease Opium has accidentally acted as a Diaphoretic

Scilla Maritima (Squills) These are much used with Mercury made into pills as a diuretic They may be made to act as a Emetic by increasing the dose they are a powerful medicine as a diuretic and next to Digitalis The fresh pulp is made into pills with soap Gum ammoniac Myrrh &c dose from 3 to 10 grains in a pill asso by mixing two parts of Squill with one of Ginger called Pil: Scillit: they are commonly dried the virtues are increased by drying 4 grains dried are equal to 20 grains recent as it owes half its weight to water when prepared and dried with great care ½ grain or 1 grain produce evident effects the

average dose for an adult is is 2 or 3 grains Linlean of Vien-
=na thinks Squills the best diuretic in Hydrops. Pectoris
It produced a true Salivation withering says he Same
Digitalis do this The Vinegar of Squills is made by in=
fusing one part of Squill in 5 parts of vinegar dose Zfs to Zij
in the dose of Zij it is Emetic In Juleps &c Zfs to Zij
Pills with crude mercury are a powerful diuretic

Hitherto we have spoken of its use internally experiments
made in Italy by Ballini in which Zj of Squills rubbed
with Saliva and Gastric Juice externally proved diuretic
to the person who rubbed the patient

Meadow Saffron This is an useless medicine it is recom
=mended as a diuretic by Storck dose from one to two
ounces of the Oxymel It belongs to the Class Hexandria

Artichoke (Cynarus Colymus) The bitter ~~leaves~~ juice of the Leaves
and Stalk are highly diuretic it is to be mashed and Strain
ed the juice mixed with white wine dose from Zfs to Zj
Darwin recommends it in the diet of dropsical patients

Black Hellebore (Helleborus Niger) ~~The macerated juice~~
~~of this plant affords~~ This Macerated affords a Juice which
is strained and mixed with Spirits of Wine and evapora=
ted to an Extract It is the principal ingredient in Ba=
=lers Tonic Pills with Myrrh in powder and Cardinus
benedictus it is as powerful in promoting Urine as it is
a Laxative adapted to the Atonic State Lemian has a

favorable opinion of it he says it produces copious watery Stools. Cullen's opinion of it is favorable though he never made use of it Lindine gave it with vegetable bitters if it does not prove diuretic he orders Squills with Gambage which is entitled to a place as a diuretic Lyndsman gave it in doses of 16 grains with Crystals of Tartar it is a powerful diuretic

Fermar also recommended it with Calomel Gambage in doses under 5 grains can always be used with safety

Diuretics of the order Siliquosae (These deserve to be mentioned as diuretics)

Horse Radish The Aqua Raphena Com: is made with Horse Radish orange peel nutmeg and proof Spirit heat in making has been observed after the exhibition of it I think it might be useful in Gleets

Mustard Is closely allied to the former Mead recommends a spoonfull of the unbruised seed as a dose

Alliaceae These are powerful and diffusible Stimulants they increase every secretion particularly of the Skin Lungs and Kidnies It is said that intolerable pain in the head often follows the use of them They should never be given in Dropsies with Fever Dr Munroe recommends the expressed juice of Leeks in Dropsies two of his friends were cured by it (don from one to three table spoonfulls three times a day in Gin) this is however a diuretic (but relapsed

in two or three years and died

Native Diuretics

Lobelia Syphilitica This is a powerful diuretic

Serratulus Spicata This is an excellent diuretic it would be well to remember that this is what our western people call Lobelia but it is a plant belonging to a different class from the Lobelia

Animal Diuretics

Canthanides The Tincture of Canthanides is made by infusing ℥ij of the powdered Canthanides and ℥fs Cochineal in ℔fs Spirit of Wine this is a Strong Stimulant and Diuretic Chalmers relates a striking instance of the efficacy of Canthanides in Dropsy 6 grains with ℥fs of Camphor were made into 6 equal boluses tight bandages were afterwards used It has been used in Eruptions In Typhus Fever (Adynamia) vide Home I have used 100 drops in the course of the day To prevent Strangury diluents should be exhibited plentifully It has been recommended in paralysis of the bladder also in hooping Cough Fluor Albus and Gleet It has been employed with success in Cutaneous complaints Dr Burton an English physician proposed treating hooping Cough with Canthanides his practice I believe has seldom been followed

Millepedes (woodlice) I exclude these as disgraceful to the Science

It is necessary here to take notice of some diuretic articles which belong partly to the Vegetable and partly to the Mineral Kingdom These are mostly the Neutral Salts

Cream of Tartar This is an Important Medicine — Home relates that out of 20 cases of Dropsy 14 were cured by it Sometimes it vomits and sometimes it binds the belly Hewian is of opinion that it deserves to be ranked in the first class of diuretics dose from ℥ss to ℥j daily

It lowered the pulse according to Hewian to which I think its virtues were owing

Nitre This is not adapted to every case sometimes debility is to great Allston relates an instance of its producing a paralytic affection of the Arm Nitre is unquestionably a Stimulant Its effects on Vegetables prove this Horses that have been killed by taking large doses of this Medicine have had their Stomach and bowels inflamed by it.

Of Emetics

Commonly called pukes or vomits These are such sub=
stances as excite the action of vomiting and thereby discharging
the Contents of the Stomach It has been supposed that this
action may conduce to health even without disease Cul=
=len thinks that it increases the activity of the Stomach
an the whole body Taken occasionally they evacuate the
Stomach and generally the Duodenum and Jejunum upwards
by an inverted penstaltic motion

vomits increase the circulation of every part but this
is not of the durable kind Cullen supposes there is a
specific consent between the Stomach and extreme surface
of the Body and thus diaphoresis is produced but all emet=
=ics do not sweat Squills and Digitalis though they sweat
will not vomit Dr Bryan Robinson thought that they
produced a Constriction in every part of the Body hence
he used them in Haemoptysis Mr J Hunter thought
there existed a Sympathy between the Stomach and Tes=
=ticles as Cullen did between the Stomach and the Skin
hence he recommended Emetics in Hernia Humoralis
he thinks they decrease the action of the Testicles

The effect of an Emetic according to Mr Moores account
is when a moderate one has been given the Stomach re
mains undisturbed for 15 minutes or ½ an hour then Nau=
sea commences often pain in the head slight rigors the

pulse weak and irregular face pale the eyes loose their lus=
=tre the countenance becomes dejected the Nausea increases
to its greatest height then vomiting commences the body
becomes agitated the eyes and face red the veins turgid
the vomiting usually intermits and returns again leaving
a distressing Nausea the pulse becomes strong and skin
hot after Antimonial Emetics have been taken the Skin
is never hot as after Squills have been used - but the pulse
is lowered as much as after a pretty copious venesection

Dr Hunter supposed Emetics had a Specific power
in producing vomiting Jalap is purgative even when
injected into the Blood vessels Two experiments were
made to prove it The Emetic when injected produced
a vomiting and the Jalap a violent purging These
experiments however are not decisive

Of the use of Emetics in particular Diseases

Asthma I refer you to an excellent paper written by
M Akenside (in vol 5 of Trans: Col: London) he exhibited
from 3 to 5 grains for a month or six weeks to adv an
tage when Ipecacuana is pure (ours is not) five grains will
operate as powerfully as ℈j Cullen does not speak so favor
ably of Emetics

Haemoptysis According to Dr B Robinson they are
useful

Hernia Humoralis According to J Hunter they are

useful in Hernia Humoralis by diminishing action more probably I think by lowering the pulse

Jaundice They are beneficial perhaps when Bilious Calculi are in the Ducts Warm Baths and Emetics are used in the London Hospital Baglivi recommends Ipecacuana in Dysentery

Particular Emetics All emetics properly so called are derived from the Vegetable or Mineral Kingdom The Animal Kingdom may perhaps afford Some for the flesh of the wild pigeon that has fed upon poke berries or upon Laurel has proven Emetic

Asarabacca (or Asarum Europeum) This is never used in this Country It is given as adose the leaves and roots possess this property It has been used in Intermittents The American Asarum or wild ginger possesses the same properties but the plants are different - it is called Coltsfoot and is brought to our market under that Name

Eryngium (common groundsel) A Strong infusion of this acts as an ~~Antimonial~~ Emetic It has been externally applied in the cure of Intermittents Ray says it is an excellent Remedy for the disease in horses called Botts

Tobacco A Surgeon (Mr Stedman) found 6 grains of Rappee Snuff as effectual as 2 grains of Tartar Emetic upon the Stomach of the Hottentots Make what use of it you please

it acts as an Emetic even when externally applied and is of great advantage in cases of an overdose of Opium in which white vitrol and Specheuna are used generally

In a case of Consultation last winter with Dr Otto where Zij of Laudanum had been taken Zj of white vitrol was given with little effect Cataplasms of Vinegar and Tobacco were used and in 20 minutes it made him move his hands to the place were it was applied and the vomiting was incessant for 6 or 7 hours In Taenia Capitis where it was applied it produced sickness and vomiting applied to a lacerated Thigh it produced sickness and vomiting violently in another vomiting of Blood and Death

Specacuanna This is a root which comes from Brazil in South America Linneus took it to be the Cicotea Emetica it is much used in Germany and England One scruple of Specheuana is equal to 2 grains of Tartar Emetic Smaller doses of Specheuana act as effectually as an Emetic 15 grains nearly as well as 25

Two grains when pure often act as a smart cathartic and Emetic That which we obtain I think is purer than that in England though I have seldom found less than from 5 to 7 grains act but under 10 grains it can hardly be depended on The British practice does not generally combine it with Tartar Emetic It has been much

extolled in Intermittents just before the Paroxysm comes on But in no disease is it so strongly recommended as in Dysentery it has been supposed to have a Specific pow=er here in Small doses it seldom fails to act as a purge and it is of no use except it does I beliive there there is some peculiarity in it I do not adopt the term Specific

In Cynanche Trachealis I use it so as to purge (com bined with Calomel) and think it more beneficial than either alone In Hernia Humoralis strong emetics have been of essential service in the same way I think as tene=section &c I beliive this practice is seldom used

Jaundice depending upon Stones in the Biliary ducts in this Emetics have been of remarkable service while giv=ing the Emetic put your patient in the warm bath

Ipecacuana is used and recommended by almost ev=ery Physician in Asthma though I know of some instances where the efflurvia of Ipecacuana brought on a true Asthma It likewise has been extolled in haemorhages Tod Dal=ling and other writers recommend it in Haemoptysis Bergius never found it of use in any other haemorhages excepting those of the Uterus

There is an indigenous vegetable called bastard or wild ginger which grows in the United States and about this City it is inferior to Ipecacuana tho a valuable medi cine (called Spirea Trifoliata) dose 15 grains as an Emetic

Scilla Maratima (or Squills) This is a Native of the Sandy Sea coasts of Spain Portugal Africa and Syria

It is Emetic Diuretic and Expectorant but little used as an Emetic in drying it loses 4/5 of its weight (according to Lewis) which is a true water — this therefor should govern our exhibition of it 4 grains are as effectual when dried as 20 of the recent plant It is however not much to be depended on as an Emetic

An infusion of mustard in boiling water acts as an Emetic

Here we finish the Vegetable and proceed to the

Mineral Emetics

Many of the preperations of Copper act as Emetics I believe they may all be managed to act in this manner The Blue Vitrol or Cuprum Coeruleum is according to Cullen a nauseating Medicine and diuretic rather than Emetic It is harsh and unmanageble This is the Emetic so much extolled by Dr J Simmons in the cure of Consumption in the early stage He condemns anti monial Emetics because their effects are not confined to the Stomach and improper in Pulmonary hectic he di= =rects the Patient to swallow 1/2 a pint of warm water be= =fore and after the dose which is to be regulated accord= ing to the age and circumstances of the patient from 2 to 10 15 or 20 grains the moment it reaches the Stomach it is thrown up the patient is then to take another dose

I do not think it so dangerous as is supposed D^r Adair found it a mild Laxative and nauseating Medicine he says that it also exerts Tonic effects likewise that it is a Sedative ℞ Blue vitrol ℥ss Aqu ℔ss pour a teaspoonfull to two table spoonfulls every two hours it thus acts as a mild puke and purges more frequently than it vomits When speaking of Mercury I said that some of its preperations were Emetic probably most if not all the Saline preperations might be made to act thus Corrosive Sublimate acts powerfully as such

The only one designed as an Emetic is Turpeth Mineral 4 5 or 6 grains of this acts briskly as an Emetic but should be exhibited with Caution its action is not confined to the first passages if it does not purge it often salivates hence I think its good effect in Hernia Humoralis D^r Cullen is not friendly to it here he thinks it is never necessary

I have exhibited it in Hernia Humoralis Angina Maligna and Putrid Sore throat I saw a Salivation after a second dose of it Once in 25 minutes after a gentle evacuation from it

White Vitrol This is the only preperation of Zinc used as an emetic It is used on account of the suddenness of its operation It cures where poisons have been tetten into the Stomach by accident or Design dose from 5 or 6 grains to ℥ss In one case I exhibited ℥j and

a large dose of Ipechecuana without effect when pure it vomits without violence

Boerhaave supposes it peculiarly adapted where deleterious Vegitables have been taken into the Stomach which diminish its Life as well as certain Metallic Poisons as Arsenic Corosive Sublimate &c

Antimony I need add nothing as it is universally employed in Practice 2 grains if good are a dose exhibited best in intervals Tartar Emetic when given to procure Stools as well as to vomit one grain to five is a dose It is discovered that Tartar Emetic dissolved in water and rubbed on the external parts is absorbed and produces perspiration and nausea a saturated Solution was used for this purpose

Of Cathartics

This clafs is extensive they act by evacuating the intestinal Canal downwards promoting and exciting the evacuation by Stool Emetics Cathartics and venesection have been employed by Mankind in every Stage and Country in the World

Purging may be excited by various conditions of the System besides these Obstructed perspiration often causes it as well as Contagion and Coldness of the lower extremities This is daily experienced by Gouty persons

Bresalia related a case of Constipation which continue=
ed three days and was cured by causing the Patient to
walk barefoot upon a Cold Marble floor Falconer cured
an obstinate costiveness in a fever by cold water applied
to the extremities

Purges differ in degree and force some are gentle in their
operation whilst others are more severe this has given rise
to the Terms Mitiora and Acriora of Cullen The effects
of Purges are an expulsion of the contents of the alimen=
=any Canal The deficiency of bile it is supposed is one
cause of Costiveness This opinion seems to be well founded
as by its stimulus it promotes the Peristaltic motion down=
=wards some suppose this to take place while others sup=
=pose its use is in digestion this is less probable Dr Mon
roe is of Opinion that the Bile is an excrementitious fluid
he infers it from its being so in the Cuttle Fish which
throws out a monstrous quantity of an inky fluid to prevent
its enemys from following it Gentian frequently acts as a
purgative

Of Particular Cathartics These are divided into mi=
=tiora and acriora the first of which I shall say little about
such as the acid fruits &c some of which are Laxative and
others Astringent Under this head I place Cassia Histu=
=laris also Tamirinds Prunes &c the same may be said
of Manna brown Sugar will do as well.

Cream of Tartar & Sulphur These are entitled to more attention they are however seldom employed as purges exclusively —

Mustard This is sometimes used as a purgative

Bile This as a purgative is now out of use it is a pretty determined Cathartic The Bile of Carnivorous Animals is more Laxative than that of herbiforous ones this would seem to shew that bile is of use by its Stimulus to carry out the putrid excrements of Carnivorous Animals

Rhubarb This is one of the best purges It is the produce of different Species but the best is obtained from the Rheum Palmatum The root alone is used

It is a gentle purgative and is adapted to every age and Constitution Dose ℈ss In adults ℈j is often necessary ℈ij is often sufficient In large doses it frequently gripes but this is the case with every Cathartic Besides its purging quality it has a peculiar though not disagreable bitter and is of use in giving Tone to the Stomach It likewise sits better on the Stomach than many other purgatives do/especially in Children where Jalap does not/ Some have denied that it possesses any astringent property others have observed that it is a diuretic

This is one of those medicines whose coloring matter is carried into the Circulation The Urine becomes tinged I observed the Urine tinged two days after one dram had been

taken Some have supposed it acts upon the Liver hence its use in the Jaundice this arose in the time of the doctrine of Signatures

Home employed it with succes in ulcers of a bad kind where the formation of fungous flesh was Rapid It has been used as an Anthelmintic of which more hereafter

Oleum Ricini (castor oil) This Cullen has improperly placed under the head of Acrida For an adult a table spoonfull or two is a dose though I have been forced to give it in doses of 3 and 4 ounces When taken with wine or brandy it sets best on the Stomach

I generally precribe it as a gentle laxative Rx Ol: Ricii: Gj: Arab: Zij Aqu: Zvi triturate them well togither Many physicians here trust the cure of Dysentery to Castor Oil and Opium alone and are generally successfull but this disease sometimes puts on symptoms of great malignancy Lee Calomel &c are exhibited

Helleb̄ Niger (Black Hellebore) This is a beautiful pyrenean plant growing in the mountains of Germany It is a strong but not violent cathartic dose from 10 grains to Zfs It is the base of Beechers Tonic pills (see Emmenagogues) This is not the Hellebore of Hippocrates his is the Adonis

Jalap (Convolvulus Jalappa) It is a native of South America It has little smell or taste The Medicinal properties

reside in the Resin but this is apt to gripe the gummy part less so It is more used in this country than in any other Coun=
=try recommends Crystals of Tartar to be given with it It acts in a less dose in this way I think it increases the Griping (to children it is best exhibited in Sugar) With Calomel it is ~~used~~ ex
hibited as a vermifuge

For an adult it is an excellent purge where the Stomach is not too irritable Dose from 10 grains to ℥ss average dose ℈j The extract is made with Spirit of wine dose 12 grains the Tincture is made with proof Spirit dose from ℈j to ℥ss

Jalap combined with Calomel is given in Dropsy Mar=
=graaf calls it Panacaea Hypocondriacum Children at the breast may take Jalap in doses of 3 or 4 grains Dose of the Resin of Jalap 4 to 10 grains

Podophyllum Pellatum (or May Apple) This plant is a native of every part of the United States Linnaeus describes two species viz Podophylum Pellatum and Podophyllum Di~~v~~=
=phellum (a paper concerning it was read before the College of Phy=
=sicians Philadelphia)

It is equal if not superior to Jalap as a Purge In Pennsyl=
=vania it is called May Apple it flowers early in May and the fruit somewhat resembles an Apple in Jersey New York and other States it is called Mandrake In the South=
=ern States hippo a comption of the word Ipechecuana In Virginia it is called Ducks-foot also in some old dis
pensatories The Cherokee Indians use it as a purge emet-

ic and Anthelmintic The root possesses active properties dose ℈j finely powdered 15 grains will do ℈ss in an overdose

The leaves possess an active and deleterious quality ma= =ny take the young leaves which come up in the Spring and boil them for Greens they bring on very disagreable Symp= =toms Often combine it with Rhubarb ℔ss the fresh root is immersed in boiling water and kept there for three days a froth will collect on the surface which skim off the root then squeezed and made into a Syrup with molas= ses forms an excellent extract dose a table Spoonfull ev= ery hour Children a tea Spoonfull This syrup was the famous Nostrum of De Witt of Germantown used in the cure of Colica Pictonum

The Root seems to possess something of an Anodyne pro= =perty but not of long duration on this account it was ob= =jected too by the College of Physicians as an exception to all Cathartics but even the Gum of Jalap possesses this quality in a small degree

Scammony This is from a Specis of Convolvulus it is of the same Species of plants as Jalap dose from 3 to 12 grains it is seldom given by itself

Senna This is from Turkey Syria &c The Leaves are of a Nauseous taste ℥j of them contains a Gummy resi= =nous extract It is a safe purge not severe but apt to gripe

It is a safe purge not severe but apt to gripe It is a species of the Genus Cassia Cassia Maryandica is of the same species as Senna and is every bit as good and may be procured at any time

Gamboge This is the produce of thine vegetables it is an important but much neglected substance It is of the same Genus as the Hypericum or St James wort

It often removes obstructions after many others have failed every It is said to be an unmanageable purge but it is one of the most manageble dose in pills from 3 to 4 grains ave-rage dose 4 grains according to Dr Rush It is the dose made use of by Dr Shippen Senr in Yellow Fever Sydenham gave 16 grains but I think it must not have been good Calomel deprives Gamboge of its property of vomiting

Collocynth This is of the gourd kind It is the pulp which is used It is of a nauseous bitter taste and violent in its operation It has induced bloody Stools and death in Large doses Dose from 4 to 10 grains It is seldom used by itself being commonly combined with other medicines as the Pill: Colocynth:

James Powder I think the composition of this medicine is not exactly known and that James probably prepared it in a different manner from that which he related to the court of Chancery Dr Pearson took it to be

an Antimonial Calx and phospate of Lime James declares that it Salivated several times but without producing Fetor of the Breath the dose is uncertain 30 grains is a moderate one according to James Dr Monroe thinks it best to begin with doses of 5 grains

Anthelmintics

These are such medicines as under every circumstance expel worms The generation of worms in the System remains yet to be explained. Without the Body these worms are to be met with in very few instances The Taenia or Tape worm I believe has been found in Siberia the waters of Siberia the Inhabitants of these countries are very subject to them The Ascarides have been found in marshy situations and loomy soil The Lumbricus were never found out of the Body

Symptoms which Indicate the Presence of Worms

A frequent piercing pain of the Stomach pale or lead=
=en colored complexion a frequent piercing pain in the Ab=
=domen though sometimes a paleness does not take place
Starting in the Sleep giddiness and fondness for bread an
inclination to vomit The breath has a peculiarly offensive
smell phlegm and frothiness of the Mouth a genuine Sal
ivation sometimes occurs rubbing and picking of the nose
swelling of the belly and slimy stools Epilepsy and fever cal

led worm fever These are not however unequivocal Char=
=acteristic Symptoms they sometimes accompany Hydroce=
phalus Internus and Dysentery The dilated pupil of the
Eye is a never failing symptom of worms a swelling
of the Alea Nasi and of the Upper Lip have been said
to be certain Characteristic Symptoms I believe they are

All worms are supposed to be derived from without
the body none being a necessary part of us They often a=
=bound during the presence of a Malignant Fever This
was the case in 1793 Worms abound in all animals
Ascarides have been found in the Bronchiae of Hogs
they caused death ——

Of Particular Anthelmintics —

Spigelia Marylandica / called Carolina or Indian
Pink root / It is a native of the Southern States it has
not been found farther North than Maryland

The root is especially used It sometimes fails from being
too old It is Emetic and Purgative in large doses —
Vertigo dimness of the Sight and convulsions of the
Globes of the Eyes often follow large doses and continue a
whole day (Dr Chalmers of South Carolina speaks very
highly of it as an Anthelmintic he calls it Woodbine (a
Species of the Honey Suckle of Linnaeus) I generally use
it in Conjunction with the common Virginia Snake=

Root and never saw any bad effects from it in this way
Dr Gordon supposes it a Corrector of the Root 12 grains of
the powdered root are a dose for a Child 8 or 9 years old
Dr Gordon recommends it in infusion ℥j of the powdered
root in ℥j of boiling water dose ℥j three times a day
It is said large doses are best and that convulsions
do not so often follow as when smaller are exhibited
If large doses are given it proves more Laxative than
smaller ℥ss Dr Gordon says acts as a purgative he says
if it purges there is no danger

Helleborus Fetidus (Bears foot) It is a Native of
Pennsylvania and Europe and grows near this City
It is a powerful Emetic a decoction of the Leaves is
used it is said to be diuretic The leaves of it disqui
sed with Ethiops Mineral formed the Celebrated Vom-
-powder of De Witt I have found it a very efficacias
Anthelmintic

Cabbage Tree The Bark of this Tree is a violent E-
-metic and Cathartic a Syrup of it is used Dr Rush
says in the Medical Commentaries it never failed
with him A medicine (if I am not mistaken) which
is nearly allied to it has lately been brought into use
called Limeria Azidrice or Bride of India It is a
Native of India and Persia the Bark of it is used in
Decoction Dr Barth of Georgia gives an account of it in

the Medical Repository of New York done for a child three years old 4 or 5 grains of the powdered root every hour

Polypodium Vulgarum (or Male Fern) Galen used it as an Anthelmentic It was bought by the late King of France from Madame Eupes who kept it as a Secret It acts powerfully Watrin labored two years under a Tape worm (96) which was discharged by the use of this Medicine three yards in length I used a Native Polypidium & twice a day on the second day discharged in all 12 yards There seems to be something in it peculiarly noxious to Insects no insect whatever feeds on it

Dolicus Pruriens (Cowhage) It is a Native of the West Indies It is the hairy down of the pods which are used A Negro first discovered it It is scraped off and made into an Electuary One tea spoonful for a Child a Table spoonfull for an Adult The hairs have been discovered piercing the bodies of worms. It should not be given in an inflamed State of the Intestines or when the Mucus is abraded it is swallowed in Honey It acts entirely Mechanically as the decoction and Infusion are inert (See Bancroft)

Oleum Ricini This when exhibited in large doses acts as a purgative but when given in small doses

produces good effects in expelling worms It acts by stopping up the Spiracles of the Worms

Camphor One dram with two drams of Olive oil injec=
=ted in the Rectum is an effectual Remedy for Worms but is particularly effectual in relieving the itching of the Rec=
=tum caused by Ascarides it often remains all night with out inconvenience and brings away the worms dead or alive this will not seem surprizing if you recollect that the vapors are so deleterious to insects It is to be used every other Night

Valerian Marchand relates some cases of Epilepsy depending on worms being cured by this Medicine I used it in the case of a Boy 12 years old with advantage 8 grains twice a day

Aloes - Two Scruples of Aloes in one gill of milk has been recommended as an Injection Darwin asks the Ques=
=tion whether Aloes would not do in Ascarides - it seems as if it would

May Apple The root of this is used by the Cherokees as an Anthelmintic I have had some interesting accounts of its use It acts as Jalap &c would do I think it is en titled to a place

We are not acquainted with all the Species of worms Some have been found exclusively in the Stomach that they

are all denied from without is probable as some Caterpillars have been worded as also a Species of fly The Indian children who feed on Indian Corn are affected with worms that are found upon this plant they use ashes it with it to prevent the effects from them

Mercury This is one of the most powerful Anthetmin-tics Calomel is the common preperation used A child of 3 years old will bear as much as a man of 30 Corro-sive Sublimate is recommended in Taenia

Tin This is used in powder only Lewis supposed its vermifuge quality was owing to the small quantity of Arsenic it contains but this is not the Case Dose ℈ss to ℈j Alston recommended ℈ss for an Adult I suppose it acts mechanically as when it is exhibited in a very fine pow-der it fails in a coarse powder it does not

Common Salt In the Medical Transactions of the College of Physicians is said to have cured a person in the lowest extremity from Worms ℔j with 2 quarts of water it produced Vomiting purging Sweating with a soreness of the Throat great thirst and Dryness the se-cond time he took it it perfectly cured him

External Applications have been too much neglected Fomentations of Rue and Wormwood They act by invigora-ting the bowels

ting the bowels and thus giving a Capacity to expel the worms Ramizini says that Bark is the most Effectual Mr Moore of London also as a Tonic it must be of great Service I suppose the Reason Ramizini found it so effectual was owing to Intermittents being so common in Italy. Sulphate of Iron combined with Bark is good Tonics are too much neglected They are most convenent in Lax debilitated haunts and in such worms generally do injury The Diet should be warm and Nourishing and at least part of it Nourishing Animal food Writers recommend distinence from butter this is not necessary Cheese of the most pungent kind may likewise be taken The liberal use of Sugar is proper Nothing is more deleterious to worms than this I believe that Women all the world over are most subject to worms The diet of Children disposed to worms should be Tonic...

Overaction in a particular part arising from the Guinea Worm - This disease is common in Africa and is attended with great pain The worm declares itself in fever and Redness of the part with Pustules containing a soft transparent Liquor

The worm is like a violin string and does not come out till the 10th day Sometimes two are found at the same time tho but Seldom They are often concealed a whole year The Negroes lay the cause in the unwholesomeness of the water to them ———

Materia Nutrentia

Of Alimentary Substances By Alimentary matter we mean substances which when taken into the body are fitted to sustain it Aliments may be considered as of easy and difficult digestion Coffe and Tea have been spo= =ken of as Medicinal Cullen supposes the Matters of Vegetables fitted to sustain the Body are an acid Sugar and Oil His opinion is not Chimerical it is founded on Facts First of an —

Acid. An acid appears in every substance which enters the food of Man In fruits more or less acid exists as also in Sugar The acids of fruits in process of time are converted into Sugar

Cullen supposes that every part except the oily part undergoes the action of Fermentation (in the Stomach) he supposes it to be a necessary ingredient in the Blood (tho an acid does not appear in the Blood) I have observed that vinegar enters the Blood in a gentleman who took large quantities of vinegar the smell of vinegar was perceptible I however deny that the vegetable a= cid is necessary to the Support and Nutrition of the System

Further — Is Fermentation necessary to Digest[illegible] Dr Hunter never could discover any acid in the Stomach during digestion This opinion was first broached by a=

Countryman of ours Dr Blaird (Bland) a Colonel of Virginia (a Theodore Blaird) before Hunter mentioned it he never found an acid in the Stomach his dissertation was about the Year 1768 (about the time Dr Rush graduated)

Sugar or the Saccharine principle is the second kind of Matter fitted to form the Animal fluid it is proved to exist in the Animal fluids

When pure it is the most Nutritious of all Substances There is a great quantity of it in farinaceous matter All Alimentary Vegetables contain a great Portion It has great Antiseptic Virtues according to Baller where Pigs have been kept for Months and Years Dirt in Sugar and Honey Volney communicated a fact that a Swedish Physician obtained a prize question by proving that Scurvy began to disappear about the time Sugar was first used in that Country Dr Starke was attacked with Symptoms of Scurvy by living on a diet of Bread and Sugar

It has been supposed to injure the Teeth where a preternatural Sensibility of the Nerves exists it does otherwise it does not According to Carminatus experiments Sugar killed frogs and Chickens

It is obtained from Grasses or any Annual Plant the Juice must be mixed with Lime boiled and Chrystalized Most of the Vegetables hitherto discovered contain it Animals also afford it Milk Honey and the Urine of Persons laboring under Diabetes afford Sugar Mr

Frank obtained a Spirit of Wine from it Dr Darwin relates a Case in which ~~Spirit of Wine~~ 4 Ounces of Sugar was obtained from the Urine of a Person

The Sugar of Maple is readily soluble in water (tho not as much so as common Sugar) distilled water dissolves twice its weight Spirit of Wine its own weight (red heat) Calcined in open vessels Ashes are left behind which contain Lime and a Black matter with ⅓ Nitric acid it affords Oxalic Acid

Oil Oil in its pure State is extremely Nutritous The oily vegetable seeds are most Nutritous and enter into the composition of the fluids I suppose large portions of oil constitute a fundamental part of the food of Man— 1st Because Oil animal or vegetable constitutes a daily part of the Food without increasing Obesity it is completely diffused in the Chyle

2nd Such a mixture does not take place tho no Chyle appears in the right Auricle

3rd Fat never makes its appearance in the Blood until it is deposited in the Adipose Cells and Bones (it has been seen on the Surface of Blood drawn but Coagulates when heated and is preternatural)

Oil is sometimes absorbed and of course enters the Circulation again as in Scurvy Syphilis &c in Beers also in Winter ——

Dr Starke found a small quantity of oil necessary to support and nourish the System Man is the most Omnivorous of all Animals The Mucilagenous part deserves a view

Mucilage This affords a great deal of Nourishment some Negroes live wholly upon it on the River Nigen Gum Arabic &c also whole Caravans

I had a case of Cathomus vesicae in a Child in a Child who lived 8 weeks upon Gum Arabic and Water and acquired flesh in that time Cullen admits to the Alimentary Matter /but it is composed of an acid Sugar and oil/ Possibly it is only the Oxygene of acids that Nourish

Calcerous Earth /as an Alimentary Matter/ Hordyce supposes it affords Nourishment and is only deposited in the Cells of the Bones It however is found in Chyle and most of the fluids even the Semen and Urine contain one part in 100 of the Phosphate of Lime

Light This deserves to be mentioned as one of the Nutrientia and seems to be necessary to the Support of Man I doubt if the Stomach performs its office so well without Light as with it It is a universal Stimulant Most Poisonous plants are rendered inert when deprived

(Blanched) of Light

Finis

Jon.a Mourduck Scrip:
October 16th 1802

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